

BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION OF KRAKEN OIL & GAS LLC FOR AN ORDER CREATING AN OVERLAPPING TEMPORARY SPACING UNIT ("OTSU") COMPRISED OF ALL OF SECTIONS 5, 8 AND 17, TOWNSHIP 26 NORTH, RANGE 57 EAST, M.P.M., RICHLAND COUNTY, MONTANA, AND AUTHORIZING THE DRILLING OF A HORIZONTAL BAKKEN/THREE FORKS FORMATION WELL THEREON AT ANY LOCATION NOT CLOSER THAN 200' (HEEL/TOE SETBACK)/500' (LATERAL SETBACK) TO THE BOUNDARIES OF SAID OTSU, VACATING MBOGC ORDER NO. 47-2012, CLARIFYING MBOGC ORDER NO. 143-2013, AND SUCH OTHER AND FURTHER RELIEF AS THE MBOGC MAY DEEM APPROPRIATE

MBOGC DOCKET NO. 153-2024

APPLICATION

KRAKEN OIL & GAS LLC, 945 Bunker Hill Road, Suite 1200, Houston, Texas 77024:

[A] Presents the following application:

1. Applicant is an interest owner within all or portions of Sections 5, 8, 17 and 20, Township 26 North, Range 57 East, M.P.M., Richland County, Montana. Said Sections 5 and 8 are presently subject to MBOGC Order No. 47-2012, while said Sections 17 and 20 are presently to MBOGC Order Nos. 142-2013 and 143-2013. Kraken Oil & Gas LLC operates the Breaks 20-17 #1-H well in the PSU comprised of All of Sections 17 and 20, Township 26 North, Range 57 East, M.P.M.

2. To more efficiently and economically recover Bakken/Three Forks formation reserves underlying the captioned lands, Applicant proposes to drill a horizontal Bakken/Three Forks formation well at a location within, but not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries of, an OTSU comprised of All of Sections 5, 8 and 17, Township 26 North, Range 57 East, M.P.M. To preserve the correlative rights of all interest owners in said Sections 17 and 20, MBOGC Order No. 143-2013 should be amended to clarify that said order is limited to oil and associated natural gas produced from the Bakken/Three Forks formation from the Breaks 20-17 #1-H well.

3. Applicant will, within 90 days of successful completion of the proposed horizontal operation, file an application for Board consideration of permanent spacing and other matters relating to production from said well.

4. Applicant notes that federal minerals are located within certain tracts affected by this application, namely the E/2E/2, SW/4NE/4 and W/2SE/4 of Section 5, the N/2, N/2S/2 and SW/4SW/4 of Section 8, and the SW/4NW/4 of Section 17, Township 26 North, Range 57 East, M.P.M.

[B] Requests:

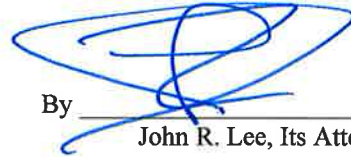
1. This matter be set for hearing, with notice given as required by law and the MOU;

2. After hearing the matter, the Board enter its order (i) creating an OTSU comprised of All of Sections 5, 8 and 17, Township 26 North, Range 57 East, M.P.M., Richland County, Montana, and authorizing the drilling of a horizontal Bakken/Three Forks formation well at any location within such OTSU but not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries thereof, providing that operations for the drilling of such well must be commenced within one year from the date of such order and further providing that the OTSU shall be limited to production from the proposed horizontal well; (ii) vacating MBOGC Order No. 47-2012;

and (iii) amending MBOGC Order No. 143-2013 to clarify that said order is limited to oil and associated natural gas produced from the Bakken/Three Forks formation from the Breaks 20-17 #1-H well.

DATED this 25th day of August, 2024.

KRAKEN OIL & GAS LLC



By _____

John R. Lee, Its Attorney

CROWLEY FLECK PLLP

P.O. Box 2529

Billings, MT 59103-2529

Email: jlee@crowleyfleck.com

BEFORE THE BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA

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OCT 10 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION - BILLINGS

IN THE MATTER OF THE APPLICATION
OF PHOENIX OPERATING LLC FOR AN
ORDER AUTHORIZING THE DRILLING
OF THREE (3) ADDITIONAL
HORIZONTAL BAKKEN/THREE FORKS
FORMATION WELLS WITHIN AND UPON
THE TEMPORARY SPACING UNIT
COMPRISED OF ALL OF SECTIONS 5 AND
8, TOWNSHIP 26 NORTH, RANGE 57 EAST,
RICHLAND COUNTY, AT ANY LOCATION
NOT CLOSER THAN 200' (HEEL/TOE
SETBACKS) AND 500' (LATERAL
SETBACKS) TO THE EXTERIOR
BOUNDARIES THEREOF.

APPLICATION

DOCKET NO. 175 - 2024

Phoenix Operating LLC ("Applicant"), 4643 South Ulster Street, Suite 1510, Denver, Colorado 80237, presents the following Application:

1. Applicant is the owner of oil and gas leasehold interests in, to and under the following described lands in Richland County:

Township 26 North, Range 57 East, MPM
Section 5: Lots 1, 2, 3 and 4, S $\frac{1}{2}$ N $\frac{1}{2}$, S $\frac{1}{2}$ (All)
Containing 636.78 acres
Section 8: All
Containing 640 acres

Containing 1,276.72 acres
2. Pursuant to Board Order 47-2012 the above lands were delineated as a temporary spacing unit for a horizontal Bakken/Three Forks Formation well.
3. Applicant requests an Order from this Board authorizing the drilling of and production from up to three (3) additional horizontal Bakken/Three Forks Formation wells within and upon the temporary spacing unit comprised of all of Sections 5 and 8, at any location not closer than 200' (heel/toe setbacks) and 500' (lateral setbacks) to the exterior boundaries of said temporary spacing unit.
4. Applicant believes that approval and granting of the request herein will be in the best interests of prevention of waste of oil and associated natural gas and the conservation thereof and will not adversely affect the correlative rights of any interested party.
5. In the event an authorized well is completed as a well capable of commercial production of Bakken/Three Forks Formation oil and associated natural gas, Applicant will submit within ninety (90) days of first production from any such well an Application with this Board requesting the establishment of a permanent spacing unit therefore.

REC

OCT 10 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

WHEREFORE, Applicant requests the following:

1. This matter be set for hearing by this Board and notice thereof be given as required by law;
2. After hearing this matter this Board enter its Order authorizing the Applicant to drill up to three (3) additional Bakken/Three Forks Formation wells within and upon the temporary spacing unit consisting of Sections 5 and 8, but not closer than 200' (heel/toe setbacks) and 500' (lateral setbacks) to the exterior boundaries of said temporary spacing unit;
3. Within ninety (90) days of first production from any authorized Bakken/Three Forks Formation well Applicant will submit an Application to this Board requesting the establishment of a permanent spacing unit therefore; and
4. For such other or additional relief as this Board may deem appropriate.

Dated October 8, 2024.

LEE LAW OFFICE PC

By: 

Don R. Lee, Attorney for Applicant
Lee Law Office PC
158 Main Street – P.O. Box 790
Shelby, MT 59474
Telephone: (406) 434-5244
Facsimile: (406) 434-5246
Email: don@leelawofficepc.com

BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION OF KRAKEN OIL & GAS LLC FOR AN ORDER CREATING AN OVERLAPPING TEMPORARY SPACING UNIT ("OTSU") COMPRISED OF ALL OF SECTIONS 20, 29 AND 32, TOWNSHIP 26 NORTH, RANGE 57 EAST, M.P.M., RICHLAND COUNTY, MONTANA, AND AUTHORIZING THE DRILLING OF A HORIZONTAL BAKKEN/THREE FORKS FORMATION WELL THEREON AT ANY LOCATION NOT CLOSER THAN 200' (HEEL/TOE SETBACK)/500' (LATERAL SETBACK) TO THE BOUNDARIES OF SAID OTSU, VACATING MBOGC ORDER NO. 562-2012, CLARIFYING MBOGC ORDER NOS. 143-2013 AND 561-2012, AND SUCH OTHER AND FURTHER RELIEF AS THE MBOGC MAY DEEM APPROPRIATE

MBOGC DOCKET NO. 195-2024

APPLICATION

KRAKEN OIL & GAS LLC, 945 Bunker Hill Road, Suite 1200, Houston, Texas 77024:

[A] Presents the following application:

1. Applicant is an interest owner within all or portions of Sections 17, 20, 29 and 32, Township 26 North, Range 57 East, M.P.M., Richland County, Montana. Said Sections 17 and 20 are presently subject to MBOGC Order Nos. 142-2013 and 143-2013, while said Sections 29 and 32 are presently subject to MBOGC Order Nos. 560-2012, 561-2012 and 562-2012. Kraken Oil & Gas LLC operates the Breaks 20-17 #1-H well in the PSU comprised of All of Sections 17 and 20, Township 26 North, Range 57 East, M.P.M. Whiting Oil and Gas Corporation/Chord Energy operates the Mahlen #24-32H well in the PSU comprised of All of Sections 29 and 32, Township 26 North, Range 57 East, M.P.M. Kraken is unaware of any opposition by Whiting/Chord to the relief being sought in this application.

2. To more efficiently and economically recover Bakken/Three Forks formation reserves underlying the captioned lands, Applicant proposes to drill a horizontal Bakken/Three Forks formation well at a location within, but not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries of, an OTSU comprised of All of Sections 20, 29 and 32, Township 26 North, Range 57 East, M.P.M. To preserve the correlative rights of all interest owners in said Sections 17 and 20, MBOGC Order No. 143-2013 should be amended to clarify that said order is limited to oil and associated natural gas produced from the Bakken/Three Forks formation from the Breaks 20-17 #1-H well. To preserve the correlative rights of all interest owners in said Sections 29 and 32, MBOGC Order No. 561-2012 should be amended to clarify that said order is limited to oil and associated natural gas produced from the Bakken/Three Forks formation from the Mahlen #24-32H well. In addition, MBOGC Order No. 562-2012 should be vacated.

3. Applicant will, within 90 days of successful completion of the proposed horizontal operation, file an application for Board consideration of permanent spacing and other matters relating to production from said well.

4. Applicant notes that there do not appear to be any federal minerals affected by this application.

[B] Requests:

1. This matter be set for hearing, with notice given as required by law and the MOU;

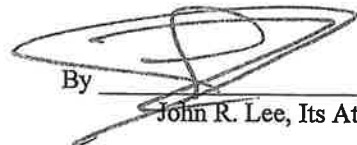
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2. After hearing the matter, the Board enter its order (i) creating an OTSU comprised of All of Sections 20, 29 and 32, Township 26 North, Range 57 East, M.P.M., Richland County, Montana, and authorizing the drilling of a horizontal Bakken/Three Forks formation well at any location within such OTSU but not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries thereof, providing that operations for the drilling of such well must be commenced within one year from the date of such order and further providing that the OTSU shall be limited to production from the proposed horizontal well; (ii) vacating MBOGC Order No. 562-2012; (iii) amending MBOGC Order No. 143-2013 to clarify that said order is limited to oil and associated natural gas produced from the Bakken/Three Forks formation from the Breaks 20-17 #1-H well; and (iv) amending MBOGC Order No. 561-2013 to clarify that said order is limited to oil and associated natural gas produced from the Bakken/Three Forks formation from the Mahlen #24-32H well.

DATED this 10th day of October, 2024.

KRAKEN OIL & GAS LLC

By  _____
John R. Lee, Its Attorney

CROWLEY FLECK PLLP
P.O. Box 2529
Billings, MT 59103-2529
Email: jlee@crowleyfleck.com

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BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION OF KRAKEN OIL & GAS LLC FOR AN ORDER AUTHORIZING THE DRILLING OF UP TO THREE ADDITIONAL HORIZONTAL BAKKEN/THREE FORKS FORMATION WELLS IN THE OVERLAPPING TEMPORARY SPACING UNIT ("OTSU") COMPRISED OF ALL OF SECTIONS 20, 29 AND 32, TOWNSHIP 26 NORTH, RANGE 57 EAST, M.P.M., RICHLAND COUNTY, MONTANA, AT ANY LOCATIONS NOT CLOSER THAN 200' (HEEL/TOE SETBACK)/500' (LATERAL SETBACK) TO THE BOUNDARIES THEREOF, AND SUCH OTHER AND FURTHER RELIEF AS THE MBOGC MAY DEEM APPROPRIATE

MBOGC DOCKET NO. 196-2024

APPLICATION

KRAKEN OIL & GAS LLC, 945 Bunker Hill Road, Suite 1200, Houston, Texas 77024:

[A] Presents the following application:

1. Applicant is an interest owner and operator within all or portions of Sections 20, 29 and 32, Township 26 North, Range 57 East, M.P.M., Richland County, Montana. It is anticipated that said lands will comprise an overlapping temporary spacing unit ("OTSU") for purposes of Bakken/Three Forks formation production pursuant to Montana Board of Oil and Gas Conservation Order No. __-2024.
2. Applicant requests authority to drill up to three additional horizontal Bakken/Three Forks formation wells within said OTSU, at any locations not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries thereof, if in its judgment as operator of the OTSU such operations appear reasonable and prudent.
3. Applicant notes that there do not appear to be any federal minerals affected by this application.

[B] Requests:

1. This matter be set for hearing, with notice given as required by law and the MOU;
2. After hearing the matter, the Board enter its order authorizing the Applicant to drill up to three additional horizontal Bakken/Three Forks formation wells at any locations within, but not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries of, the OTSU comprised of Sections 20, 29 and 32, Township 26 North, Range 57 East, M.P.M., Richland County, Montana, and providing that the OTSU shall be limited to production from the proposed horizontal wells.

DATED this 10th day of October, 2024.

KRAKEN OIL & GAS LLC

By _____

John R. Lee, Its Attorney

CROWLEY FLECK PLLP

P.O. Box 2529

Billings, MT 59103-2529

Email: jlee@crowleyfleck.com

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BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION OF KRAKEN OIL & GAS LLC FOR AN ORDER AUTHORIZING THE DRILLING OF UP TO THREE ADDITIONAL HORIZONTAL BAKKEN/THREE FORKS FORMATION WELLS IN THE OVERLAPPING TEMPORARY SPACING UNIT ("OTSU") COMPRISED OF ALL OF SECTIONS 5, 8 AND 17, TOWNSHIP 26 NORTH, RANGE 57 EAST, M.P.M., RICHLAND COUNTY, MONTANA, AT ANY LOCATIONS NOT CLOSER THAN 200' (HEEL/TOE SETBACK)/500' (LATERAL SETBACK) TO THE BOUNDARIES THEREOF, AND SUCH OTHER AND FURTHER RELIEF AS THE MBOGC MAY DEEM APPROPRIATE

MBOGC DOCKET NO. 197-2024

APPLICATION

KRAKEN OIL & GAS LLC, 945 Bunker Hill Road, Suite 1200, Houston, Texas 77024:

[A] Presents the following application:

1. Applicant is an interest owner and operator within all or portions of Sections 5, 8 and 17, Township 26 North, Range 57 East, M.P.M., Richland County, Montana. It is anticipated that said lands will comprise an overlapping temporary spacing unit ("OTSU") for purposes of Bakken/Three Forks formation production pursuant to Montana Board of Oil and Gas Conservation Order No. __-2024.

2. Applicant requests authority to drill up to three additional horizontal Bakken/Three Forks formation wells within said OTSU, at any locations not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries thereof, if in its judgment as operator of the OTSU such operations appear reasonable and prudent.

3. Applicant notes that federal minerals are located within certain tracts affected by this application, namely the E/2E/2, SW/4NE/4 and W/2SE/4 of Section 5, the N/2, N/2S/2 and SW/4SW/4 of Section 8, and the SW/4NW/4 of Section 17, Township 26 North, Range 57 East, M.P.M.

[B] Requests:

1. This matter be set for hearing, with notice given as required by law and the MOU;

2. After hearing the matter, the Board enter its order authorizing the Applicant to drill up to three additional horizontal Bakken/Three Forks formation wells at any locations within, but not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries of, the OTSU comprised of Sections 5, 8 and 17, Township 26 North, Range 57 East, M.P.M., Richland County, Montana, and providing that the OTSU shall be limited to production from the proposed horizontal wells.

DATED this 10th day of October, 2024.

KRAKEN OIL & GAS LLC

By

John R. Lee, Its Attorney

CROWLEY FLECK PLLP

P.O. Box 2529

Billings, MT 59103-2529

Email: jlee@crowleyfleck.com

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**BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA**

IN THE MATTER OF THE APPLICATION OF CONTINENTAL RESOURCES INC. FOR AN ORDER DESIGNATING AN OVERLAPPING TEMPORARY SPACING UNIT COMPRISED OF ALL OF SECTIONS 14, 23 AND 26, TOWNSHIP 26 NORTH, RANGE 54 EAST, RICHLAND COUNTY, MONTANA, AND AUTHORIZING THE DRILLING OF A HORIZONTAL BAKKEN/THREE FORKS FORMATION WELL THEREON AT ANY LOCATION NOT CLOSER THAN 200 FEET FROM HEEL/TOE BOUNDARY AND 500 FEET FROM THE SIDE BOUNDARIES OF SAID TEMPORARY SPACING UNIT, PROVIDED THAT OPERATIONS FOR THE DRILLING OF SAID WELL MUST COMMENCE WITHIN ONE YEAR OF THE DATE OF THE ORDER ISSUED BY THE BOARD, THE OVERLAPPING TEMPORARY SPACING UNIT SHALL BE LIMITED TO PRODUCTION FROM THE PROPOSED HORIZONTAL WELL AND APPLICANT WILL APPLY FOR PERMANENT SPACING WITHIN 90 DAYS OF SUCCESSFUL WELL COMPLETION.

MBOGC Docket No. 199-2024

APPLICATION

APPLICANT FURTHER REQUESTS THAT BOARD ORDER 2014-221 ESTABLISHING A TEMPORARY SPACING UNIT COMPRISED OF ALL OF SECTIONS 26 AND 35, TOWNSHIP 26 NORTH, RANGE 54 EAST, RICHLAND COUNTY, MONTANA BE VACATED.

APPLICANT FURTHER REQUESTS THAT BOARD ORDER 2012-126 PERTAINING TO SECTIONS 14 AND 23 TOWNSHIP 26 NORTH, RANGE 54 EAST BE AMENDED TO CLARIFY THAT SAID ORDER IS LIMITED TO OIL AND ASSOCIATED NATURAL GAS PRODUCED FROM THE BAKKEN/THREE FORKS FORMATION FROM THE HAROLD 1-14H WELL AND THAT ORDER 2012-135 AUTHORIZING THREE ADDITIONAL WELLS BE VACATED.

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MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

CONTINENTAL RESOURCES, INC., 20 N. Broadway, Oklahoma City, OK 73102:

[A] Presents the following application:

1. Applicant is an interest owner and operator within Sections 14, 23 and 26, Township 26 North, Range 54 East Richland County, Montana which tracts are presently spaced with respect to the Bakken formation by Orders:
 - 120-2012 – creating a permanent spacing unit comprised of All of Sections 14 and 23, T26N, R54E for oil and natural gas production from the Harold 1-14H well.
 - 160-2008 – creating a permanent spacing unit comprised of All of Section 26, T26N, R54E for oil and natural gas production from the Newhouse 1-26H well.
 - 221-2014 – creating an overlapping temporary spacing unit comprised of All of Sections 26 and 35, T26N, R54E.
2. To more efficiently and economically recover Bakken/Three Forks formation reserves underlying the captioned lands, Applicant proposes to drill a horizontal Bakken/Three Forks formation well within, but not closer than 200 feet to the heel/toe exterior boundaries and 500 feet to the lateral boundaries, of a temporary spacing unit (“TSU”) comprised of All of Sections 14, 23 and 26, Township 26 North, Range 54 East, Richland County, Montana, subject to the conditions that applicant must commence said well within one year of the date of the order issued by the Board and that the overlapping temporary spacing unit be limited to production from the proposed horizontal well.

3. Applicant further requests that Board Order 2014-221 creating a temporary spacing unit comprised of All of Sections 35 and 26, T26N, R54E be vacated.
4. Applicant further requests that Board Order 2012-126 pertaining to Sections 14 and 23, Township 26 North, Range 54 East, be amended to clarify that said order is limited to oil and natural gas from the Bakken/Three Forks Formation from the Harold 1-14H well and that Order 2012-135 authorizing 3 additional wells be vacated.
5. Applicant will, within 90 days of successful completion of the proposed horizontal operation, file an application for Board consideration of permanent spacing and all other matters relating to production of said well.
6. The proposed temporary spacing unit contains the no Federal or Trust lands.

[B] Requests:

1. This matter be set for hearing and placed on the Docket, with notice given as required by law.
2. After hearing the matter, the Montana Board of Oil & Gas Conservation enter its order that a TSU comprised of All Sections 14, 23 and 26, Township 26 North, Range 54 East, Richland County, Montana be established, subject to the condition that applicant must commence said well within one year of the date of the order issued by the Board.
3. Authorizing the Applicant to locate its proposed horizontal well anywhere within such TSU but not closer than 200 feet to the toe/heel boundaries and no further than 500 feet from the common boundary thereof.

Dated October 29, 2024.

CONTINENTAL RESOURCES INC.

By 
Scotti Gray
Attorney for Applicant

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MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION
OF CONTINENTAL RESOURCES INC.
FOR AUTHORIZATION TO DRILL UP TO
TWO ADDITIONAL HORIZONTAL
BAKKEN/THREE FORKS FORMATION
WELLS IN THE SPACING UNIT
COMPRISED OF SECTIONS 14, 23 AND
26, TOWNSHIP 26 NORTH, RANGE 54
EAST, RICHLAND COUNTY,
MONTANA, AT ANY LOCATION NOT
CLOSER THAN 500 FEET TO THE SIDE
BOUNDARIES AND 200 FEET TO THE
TOE/HEEL BOUNDARIES OF SAID
SPACING UNIT

MBOGC Docket No. 200-2024

APPLICATION

CONTINENTAL RESOURCES, INC., 20 N. Broadway, Oklahoma City, OK 73102:

[A] **Presents the following application:**

1. Applicant is an interest owner and operator within the above-described lands:
2. The above-described lands are presently subject to a pending application to designate a temporary spacing unit ("TSU") comprised of said lands and authorize the drilling of a well in the TSU.
3. To more efficiently and economically recover Bakken/Three Forks formation reserves underlying the captioned lands, Applicant proposes to drill up to two additional horizontal Bakken/Three Forks formation wells within, but not closer than 500 feet to the side boundaries and 200 feet to the toe/heel boundaries of the spacing unit.

[B] **Requests:**

1. This matter be set for hearing and placed on the Docket, with notice given as required by law.
2. After hearing the matter, the Board enter its order authorizing applicant to drill up to two additional horizontal Bakken/Three Forks formation wells within, but not closer than 500 feet to the side boundaries and 200 feet to the toe/heel boundaries of the spacing unit.

Dated October 29, 2024.

CONTINENTAL RESOURCES INC

By Scotti Gray
Scotti Gray
Attorney for Applicant

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MONTANA BOARD OF OIL &
GAS CONSERVATION • Billings

**BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA**

IN THE MATTER OF THE APPLICATION OF CONTINENTAL RESOURCES INC. FOR AN ORDER DESIGNATING AN OVERLAPPING TEMPORARY SPACING UNIT COMPRISED OF ALL OF SECTIONS 3 AND 10, TOWNSHIP 26 NORTH, RANGE 54 EAST AND ALL OF SECTION 34, TOWNSHIP 27 NORTH, RANGE 54 EAST, RICHLAND COUNTY, MONTANA, AND AUTHORIZING THE DRILLING OF A HORIZONTAL BAKKEN/THREE FORKS FORMATION WELL THEREON AT ANY LOCATION NOT CLOSER THAN 200 FEET FROM THE TOE/HEEL BOUNDARY AND 500 FEET FROM THE SIDE BOUNDARIES OF SAID TEMPORARY SPACING UNIT, PROVIDED THAT OPERATIONS FOR THE DRILLING OF SAID WELL MUST COMMENCE WITHIN ONE YEAR OF THE DATE OF THE ORDER ISSUED BY THE BOARD, THE OVERLAPPING TEMPORARY SPACING UNIT SHALL BE LIMITED TO PRODUCTION FROM THE PROPOSED HORIZONTAL WELL AND APPLICANT WILL APPLY FOR PERMANENT SPACING WITHIN 90 DAYS OF SUCCESSFUL WELL COMPLETION.

MBOGC Docket No. 201-2024

AMENDED APPLICATION

APPLICANT FURTHER REQUESTS THAT BOARD ORDER 2012-474 PERTAINING TO SECTIONS 3 AND 10 TOWNSHIP 26 NORTH, RANGE 54 EAST BE AMENDED TO CLARIFY THAT SAID ORDER IS LIMITED TO OIL AND ASSOCIATED NATURAL GAS PRODUCED FROM THE BAKKEN/THREE FORKS FORMATION FROM THE KANE 1-10H WELL AND THAT ORDER 2012-475 AUTHORIZING THREE ADDITIONAL WELLS BE VACATED.

CONTINENTAL RESOURCES, INC., 20 N. Broadway, Oklahoma City, OK 73102:

[A] Presents the following application:

1. Applicant is an interest owner and operator within Sections 3 and 10, Township 26 North, Range 54 East and Section 34, Township 27 North, Range 54 East, Richland County, Montana which tracts are presently spaced with respect to the Bakken formation by Orders:
 - 473-2012 – creating a permanent spacing unit comprised of All of Sections 3 and 10, T26N, R54E for oil and gas production from the Kane 1-10H well.
2. To more efficiently and economically recover Bakken/Three Forks formation reserves underlying the captioned lands, Applicant proposes to drill a horizontal Bakken/Three Forks formation well within, but not closer than 200 feet to the heel/toe exterior boundaries and 500 feet to the lateral boundaries, of a temporary spacing unit (“TSU”) comprised of All of Sections 3 and 10, Township 26 North, Range 54 East and Section 34, Township 27 North, Range 54 East, Richland County, Montana, subject to the conditions that applicant must commence said well within one year of the date of the order issued by the Board and that the overlapping temporary spacing unit be limited to production from the proposed horizontal well.
3. Applicant further requests that Board Order 2012-474 pertaining to Sections 3 and 10, Township 26 North, Range 54 East, be amended to clarify that said order is limited to oil and natural gas from the Bakken/Three Forks Formation from the Kane 1-10H well and that Order 2012-475 authorizing three additional wells be vacated.
4. Applicant will, within 90 days of successful completion of the proposed horizontal operation, file an application for Board consideration of permanent spacing and all other matters relating to production of said well.

5. The proposed temporary spacing unit contains no Federal or Trust lands.

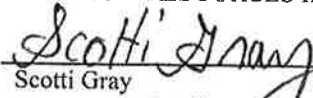
[B] Requests:

1. This matter be set for hearing and placed on the Docket, with notice given as required by law.
2. After hearing the matter, the Montana Board of Oil & Gas Conservation its order that a TSU comprised of All Sections 3 and 10, Township 26 North, Range 54 East and Section 34, Township 27 North, Range 54 East, Richland County, Montana be established, subject to the conditions that applicant must commence said well within one year of the date of the order issued by the Board, the overlapping temporary spacing unit be limited to production from the proposed horizontal well and that applicant will apply for permanent spacing within 90 days of successful completion.
3. Authorizing the Applicant to locate its proposed horizontal well anywhere within such TSU but not closer than 200 feet to the toe/heel boundaries and no further than 500 feet from the common boundary thereof.

Dated November 4, 2024.

CONTINENTAL RESOURCES INC.

By


Scotti Gray
Attorney for Applicant

**BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA**

IN THE MATTER OF THE APPLICATION
OF CONTINENTAL RESOURCES INC.
FOR AUTHORIZATION TO DRILL UP TO
TWO ADDITIONAL HORIZONTAL
BAKKEN/THREE FORKS FORMATION
WELLS IN THE SPACING UNIT
COMPRISED OF ALL OF SECTIONS 3
AND 10, TOWNSHIP 26 NORTH, RANGE
54 EAST AND ALL OF SECTION 34,
TOWNSHIP 27 NORTH, RANGE 54 EAST,
RICHLAND COUNTY, MONTANA, AT
ANY LOCATION NOT CLOSER THAN
500 FEET TO THE SIDE BOUNDARIES
AND 200 FEET TO THE TOE/HEEL
BOUNDARIES OF SAID SPACING UNIT

MBOGC Docket No. 202-2024

APPLICATION

CONTINENTAL RESOURCES, INC., 20 N. Broadway, Oklahoma City, OK 73102:

[A] Presents the following application:

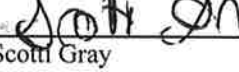
1. Applicant is an interest owner and operator within the above-described lands:
2. The above-described lands are presently subject to a pending application to designate a temporary spacing unit ("TSU") comprised of said lands and authorize the drilling of a well in the TSU.
3. To more efficiently and economically recover Bakken/Three Forks formation reserves underlying the captioned lands, Applicant proposes to drill up to 2 additional horizontal Bakken/Three Forks formation wells within, but not closer than 500 feet to the side boundaries and 200 feet to the toe/heel boundaries of the spacing unit.

[B] Requests:

1. This matter be set for hearing and placed on the Docket, with notice given as required by law.
2. After hearing the matter, the Board enter its order authorizing applicant to drill up to two additional horizontal Bakken/Three Forks formation wells within, but not closer than 500 feet to the side boundaries and 200 feet to the toe/heel boundaries of the spacing unit.

Dated October 29, 2024.

CONTINENTAL RESOURCES INC

By 
Scott Gray
Attorney for Applicant

RECEIVED

NOV 01 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

**BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA**

IN THE MATTER OF THE APPLICATION OF CONTINENTAL RESOURCES INC. FOR AN ORDER DESIGNATING AN OVERLAPPING TEMPORARY SPACING UNIT COMPRISED OF ALL OF SECTIONS 1 AND 12, TOWNSHIP 24 NORTH, RANGE 53 EAST AND ALL OF SECTIONS 5, 6, 7 AND 8, TOWNSHIP 24 NORTH, RANGE 54 EAST, RICHLAND COUNTY, MONTANA, AND AUTHORIZING THE DRILLING OF A HORIZONTAL BAKKEN/THREE FORKS FORMATION WELL THEREON AT ANY LOCATION NOT CLOSER THAN 200 FEET TO THE TOE/HEEL BOUNDARY AND 500 FEET FROM THE SIDE BOUNDARIES OF SAID TEMPORARY SPACING UNIT, PROVIDED THAT OPERATIONS FOR THE DRILLING OF SAID WELL MUST COMMENCE WITHIN ONE YEAR OF THE DATE OF THE ORDER ISSUED BY THE BOARD, THE OVERLAPPING TEMPORARY SPACING UNIT BE LIMITED TO PRODUCTION FROM THE PROPOSED HORIZONTAL WELL AND APPLICANT APPLY FOR PERMANENT SPACING WITHIN 90 DAYS OF SUCCESSFUL WELL COMPLETION.

MBOGC Docket No. 203-2024

SECOND AMENDED APPLICATION

APPLICANT FURTHER REQUESTS THAT BOARD ORDER 2009-142 ESTABLISHING A TEMPORARY SPACING UNIT COMPRISED OF ALL OF SECTIONS 4, 5, 8 AND 9, TOWNSHIP 24 NORTH, RANGE 54 EAST, RICHLAND COUNTY, MONTANA BE VACATED.

APPLICANT FURTHER REQUESTS THAT BOARD ORDER 2007-14 AUTHORIZING ONE ADDITIONAL WELL IN THE SPACING UNIT COMPRISED OF SECTIONS 1 AND 12, TOWNSHIP 24 NORTH, RANGE 53 EAST BE VACATED.

RECEIVED

JAN 14 2025

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

CONTINENTAL RESOURCES, INC., 20 N. Broadway, Oklahoma City, OK 73102:

[A] Presents the following application:

1. Applicant is an interest owner and operator within Sections 1 and 12, Township 24 North, Range 53 East and 5, 6, 7 and 8, Township 24 North, Range 54 East, Richland County, Montana which tracts are presently spaced with respect to the Bakken formation by Orders:
 - 217-2005 – creating a permanent spacing unit comprised of All of Sections 1 and 12, T24N, R53E for oil and natural gas production from the Kim 1-12H well.
 - 330-2008 – creating a permanent spacing unit comprised of All of Sections 1 and 12, T24N, R53E and All of Sections 6 and 7, T24N, R54E for oil and natural gas production from the Lea Joe 1-1H well.
 - 289-2004 – creating a permanent spacing unit comprised of All of Sections 5 and 8, T24N, R54E for oil and natural gas production from the Joyce 13-5H well.
 - 129-2014 – creating a permanent spacing unit comprised of All of Sections 5, 6, 7 and 8, T24N, R54E for oil and natural gas production from the Joyce HSL well.
 - 377-2004 – creating a permanent spacing unit comprised of All of Sections 6 and 7, T24N, R54E for oil and natural gas production from the Paula 1-7H well.
 - 142-2008 – creating an overlapping temporary spacing unit comprised of All of Sections 4, 5, 8 and 9, T24N, R54E.
2. To more efficiently and economically recover Bakken/Three Forks formation reserves underlying the captioned lands, Applicant proposes to drill a horizontal Bakken/Three Forks formation well within, but not closer than 200 feet to the toe/heel exterior boundaries and 500 feet to the lateral

boundaries, of a temporary spacing unit ("TSU") comprised of Sections 1 and 12, Township 24 North, Range 53 East and 5, 6, 7 and 8, Township 24 North, Range 53 East, Richland County, Montana, subject to the conditions that the overlapping temporary spacing unit shall be limited to production from the proposed horizontal well and that applicant must commence said well within one year of the date of the order issued by the Board.

3. Applicant further requests that Board Order 2009-142 creating a temporary spacing unit comprised of All of Sections 4, 5, 8 and 9, T24N, R54E be vacated.
4. Applicant will, within 90 days of successful completion of the proposed horizontal operation, file an application for Board consideration of permanent spacing and all other matters relating to production of said well.
5. The proposed temporary spacing unit contains no Federal or Trust lands.
6. Applicant further requests that Order 14-2007 authorizing one additional well in the spacing unit comprised of Sections 1 and 12, Township 24 North, Range 53 East be vacated.

[B] Requests:

1. This matter be set for hearing and placed on the Docket, with notice given as required by law.
2. After hearing the matter, the Montana Board of Oil & Gas Conservation enter its order that a TSU comprised of Sections 1 and 12, Township 24 North, Range 53 East and 5, 6, 7 and 8, Township 24 North, Range 54 East, Richland County, Montana be established, subject to the conditions that the overlapping temporary spacing unit shall be limited to production from the proposed horizontal well, applicant must commence said well within one year of the date of the order issued by the Board and application must file an application for permanent spacing within 90 days of successful completion.
3. Authorizing the Applicant to locate its proposed horizontal well anywhere within such TSU but not closer than 200 feet to the toe/heel boundaries and no further than 500 feet from the common boundary thereof; and
4. Vacating Orders 2009-142 and 2007-14.

Dated January 13, 2025.

CONTINENTAL RESOURCES INC.

By


Scotti Gray

Attorney for Applicant

RECEIVED

JAN 14 2025

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION
OF CONTINENTAL RESOURCES INC.
FOR AUTHORIZATION TO DRILL UP TO
TWO ADDITIONAL HORIZONTAL
BAKKEN/THREE FORKS FORMATION
WELLS IN THE SPACING UNIT
COMPRISED OF ALL OF SECTIONS 1
AND 12, TOWNSHIP 24 NORTH, RANGE
53 EAST AND ALL OF SECTIONS 5, 6, 7
AND 8, TOWNSHIP 24 NORTH, RANGE
54 EAST, RICHLAND COUNTY,
MONTANA, AT ANY LOCATION NOT
CLOSER THAN 500 FEET TO THE SIDE
BOUNDARIES AND 200 FEET TO THE
TOE/HEEL BOUNDARIES OF SAID
SPACING UNIT

MBOGC Docket No. 204-2024

APPLICATION

CONTINENTAL RESOURCES, INC., 20 N. Broadway, Oklahoma City, OK 73102:

[A] Presents the following application:

1. Applicant is an interest owner and operator within the above-described lands:
2. The above-described lands are presently subject to a pending application to designate a temporary spacing unit ("TSU") comprised of said lands and authorize the drilling of a well in the TSU.
3. To more efficiently and economically recover Bakken/Three Forks formation reserves underlying the captioned lands, Applicant proposes to drill up to 2 additional horizontal Bakken/Three Forks formation wells within, but not closer than 500 feet to the side boundaries and 200 feet to the toe/heel boundaries of the spacing unit.

[B] Requests:

1. This matter be set for hearing and placed on the Docket, with notice given as required by law.
2. After hearing the matter, the Board enter its order authorizing applicant to drill up to two additional horizontal Bakken/Three Forks formation wells within, but not closer than 500 feet to the side boundaries and 200 feet to the toe/heel boundaries of the spacing unit.

Dated October 29, 2023.

CONTINENTAL RESOURCES INC

By Scotti Gray
Scotti Gray
Attorney for Applicant

RECEIVED

NOV 01 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

**BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA**

IN THE MATTER OF THE APPLICATION OF CONTINENTAL RESOURCES INC. FOR AN ORDER DESIGNATING AN OVERLAPPING TEMPORARY SPACING UNIT COMPRISED OF ALL OF SECTIONS 2 AND 11, TOWNSHIP 26 NORTH, RANGE 54 EAST AND ALL OF SECTION 35, TOWNSHIP 27 NORTH, RANGE 54 EAST, RICHLAND COUNTY, MONTANA, AND AUTHORIZING THE DRILLING OF A HORIZONTAL BAKKEN/THREE FORKS FORMATION WELL THEREON AT ANY LOCATION NOT CLOSER THAN 200 FEET TO THE HEEL/TOE BOUNDARY AND 500 FEET FROM THE SIDE BOUNDARIES OF SAID TEMPORARY SPACING UNIT, PROVIDED THAT OPERATIONS FOR THE DRILLING OF SAID WELL MUST COMMENCE WITHIN ONE YEAR OF THE DATE OF THE ORDER ISSUED BY THE BOARD, THE OVERLAPPING TEMPORARY SPACING UNIT SHALL BE LIMITED TO PRODUCTION FROM THE PROPOSED HORIZONTAL WELL AND APPLICANT WILL APPLY FOR PERMANENT SPACING WITHIN 90 DAYS OF SUCCESSFUL WELL COMPLETION.

MBOGC Docket No.
Federal Docket No.

205-2024
4-2025 FED

AMENDED APPLICATION

APPLICANT FURTHER REQUESTS THAT BOARD ORDER 2005-432 ESTABLISHING A TEMPORARY SPACING UNIT COMPRISED OF ALL OF SECTIONS 26 AND 35, TOWNSHIP 27 NORTH, RANGE 54 EAST, RICHLAND COUNTY, MONTANA BE VACATED.

APPLICANT FURTHER REQUESTS THAT BOARD ORDER 2012-340 PERTAINING TO SECTIONS 2 AND 11 TOWNSHIP 26 NORTH, RANGE 54 EAST BE AMENDED TO CLARIFY THAT SAID ORDER IS LIMITED TO OIL AND ASSOCIATED NATURAL GAS PRODUCED FROM THE BAKKEN/THREE FORKS FORMATION FROM THE POTTS 1-11H WELL AND THAT ORDER 2012-339 AUTHORIZING THREE ADDITIONAL WELLS BE VACATED.

CONTINENTAL RESOURCES, INC., 20 N. Broadway, Oklahoma City, OK 73102:

[A] Presents the following application:

1. Applicant is an interest owner and operator within Sections 2 and 11, Township 26 North, Range 54 East and Section 35, Township 27 North, Range 54 East, Richland County, Montana which tracts are presently spaced with respect to the Bakken formation by Orders:
 - 432-2005 – creating a temporary spacing unit comprised of All of Sections 26 and 35, T27N, R54E.
 - 338-2012 – creating a permanent spacing unit comprised of All of Sections 2 and 11, T26N, R54E for oil and gas production from the Potts 1-11H well.

2. To more efficiently and economically recover Bakken/Three Forks formation reserves underlying the captioned lands, Applicant proposes to drill a horizontal Bakken/Three Forks formation well within, but not closer than 200 feet to the heel and 200 feet to the toe exterior boundaries and 500 feet to the lateral boundaries, of a temporary spacing unit (“TSU”) comprised of All of Sections 2 and 11, Township 26 North, Range 54 East and Section 35, Township 27 North, Range 54 East, Richland County, Montana, subject to the conditions that applicant must commence said well within one year of the date of the order issued by the Board and that the overlapping temporary spacing unit be limited to production from the proposed horizontal well.

3. Applicant further requests that Board Order 432-2005 creating a temporary spacing unit comprised of All of Sections 26 and 35, T27N, R54E be vacated.
4. Applicant further requests that Board Order 2012-340 pertaining to Sections 2 and 11, Township 26 North, Range 54 East, be amended to clarify that said order is limited to oil and natural gas from the Bakken/Three Forks Formation from the Potts 1-11H well and that Board Order 2012-339 authorizing three additional wells be vacated.
5. Applicant will, within 90 days of successful completion of the proposed horizontal operation, file an application for Board consideration of permanent spacing and all other matters relating to production of said well.
6. The proposed temporary spacing unit contains the following Federal lands:

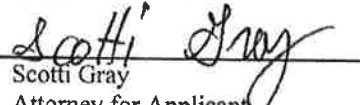
Township 26 North, Range 54 East
Section 2: NWSE

[B] **Requests:**

1. This matter be set for hearing and placed on the Docket, with notice given as required by law.
2. After hearing the matter, the Montana Board of Oil & Gas Conservation and the United States Dept. of the Interior enter their orders that a TSU comprised of All Sections 2 and 11, Township 26 North, Range 54 East and Section 35, Township 27 North, Range 54 East, Richland County, Montana be established, subject to the conditions that applicant must commence said well within one year of the date of the order issued by the Board, the overlapping temporary spacing unit be limited to production from the proposed horizontal well and that applicant will apply for permanent spacing within 90 days of successful completion.
3. Authorizing the Applicant to locate its proposed horizontal well anywhere within such TSU but not closer than 200 feet to the toe/heel boundaries and no further than 500 feet from the common boundary thereof.

Dated November 4, 2024.

CONTINENTAL RESOURCES INC.

By 
Scotti Gray
Attorney for Applicant

BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION
OF CONTINENTAL RESOURCES INC.
FOR AUTHORIZATION TO DRILL UP TO
TWO ADDITIONAL HORIZONTAL
BAKKEN/THREE FORKS FORMATION
WELLS IN THE SPACING UNIT
COMPRISED OF SECTIONS 2 AND 11,
TOWNSHIP 26 NORTH, RANGE 54 EAST
AND ALL OF SECTION 35, TOWNSHIP
27 NORTH, RANGE 54 EAST, RICHLAND
COUNTY, MONTANA, AT ANY
LOCATION NOT CLOSER THAN 500
FEET TO THE SIDE BOUNDARIES AND
200 FEET TO THE TOE/HEEL
BOUNDARIES OF SAID SPACING UNIT

MBOGC Docket No. 206-2024
Federal Docket No. 5-2025 FED

APPLICATION

CONTINENTAL RESOURCES, INC., 20 N. Broadway, Oklahoma City, OK 73102:

[A] Presents the following application:

1. Applicant is an interest owner and operator within the above-described lands:
2. The above-described lands are presently subject to a pending application to designate a temporary spacing unit ("TSU") comprised of said lands and authorize the drilling of a well in the TSU.
3. The proposed temporary spacing unit contains the following Federal lands:

Township 26 North, Range 54 East
Section 2: NWSE

4. To more efficiently and economically recover Bakken/Three Forks formation reserves underlying the captioned lands, Applicant proposes to drill up to two additional horizontal Bakken/Three Forks formation wells within, but not closer than 500 feet to the side boundaries and 200 feet to the toe/heel boundaries of the spacing unit.

[B] Requests:

1. This matter be set for hearing and placed on the Docket, with notice given as required by law.
2. After hearing the matter, the Board and the Dept. of the Interior enter their orders authorizing applicant to drill up to two additional horizontal Bakken/Three Forks formation wells within, but not closer than 500 feet to the side boundaries and 200 feet to the toe/heel boundaries of the spacing unit.

Dated October 29, 2024.

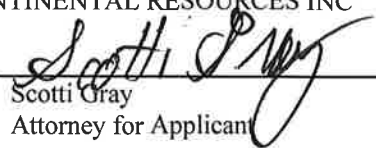
RECEIVED

NOV 01 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

CONTINENTAL RESOURCES INC

By


Scotti Gray

Attorney for Applicant



November 1, 2024

Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

Attn: Mr. John Gizicki
UIC Program Manager

RE: Application for UIC Permit and Authorization to Drill a Class II Injection Well
Location of proposed Disposal Well & Facility: Ronin 1 SWD
SW 1/4 SE 1/4, Section 35, Township 29N, Range 57E. P.M.M.
Roosevelt County, Montana

RECEIVED
NOV 01 2024
MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

Dear Mr. Gizicki,

Phoenix Operating LLC (Phoenix) respectfully submits this application for an Underground Injection Control (UIC) permit for the referenced location and as described in the attached application. A check in the amount of \$150.00 is included in this application submittal, Check #27948.

Phoenix has provided notice to the appropriate parties within ¼ mile area of review of the proposed well location and requests that the application be placed on the docket for the MBOGC hearing scheduled December 5, 2024. A public legal notice will be published in the Helena Independent Record and the Northern Plains Independent upon confirmation of the scheduled docket date, and evidence and proof of publication will be supplemented to MBOGC upon receipt.

If you have any questions concerning the enclosed application, please contact myself at (435) 789-1017 or to Mark Johnson with Phoenix Operating LLC at (303) 548-1953.

Sincerely,

Mark Johnson
EVP Land/Regulatory/HSE
Phoenix Operating LLC

Amy Doebele
Authorized Agent for Phoenix Operating LLC
UELS, LLC



RECEIVED

OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

October 30, 2024

Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

Attn: Mr. John Gizicki
UIC Program Manager

RE: Application for UIC Permit and Authorization to Drill a Class II Injection Well
Location of proposed Disposal Well & Facility: Ronin 1 SWD
SW 1/4 SE 1/4, Section 35, Township 29N, Range 57W. P.M.M.
Roosevelt County, Montana

Dear Mr. Gizicki,

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If you have any questions concerning the enclosed application, please contact myself at (435) 789-1017 or to Mark Johnson with Phoenix Operating LLC at (303) 548-1953.

Sincerely,

Amy Doebele
Authorized Agent for Phoenix Operating LLC
UELS, LLC

RECEIVED

OCT 30 2024

FORM NO. 22 R 10/09	SUBMIT IN QUADRUPLICATE TO:	ARM 36.22.307 ARM 36.22.601	Lease Name: RONIN		
MONTANA BOARD OF OIL AND GAS CONSERVATION 2535 ST. JOHNS AVENUE, BILLINGS, MONTANA 59102			MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS		
Application for Permit To:			Lease Type (Private/State/Federal): PRIVATE		
Drill <input checked="" type="checkbox"/>	Deepen <input type="checkbox"/>	Re-enter <input type="checkbox"/>	Well Number: 1 SWD		
Oil <input type="checkbox"/>	Gas <input type="checkbox"/>	Other <u>SWD</u> <input checked="" type="checkbox"/>	Field Name or Wildcat: WILDCAT - ROOSEVELT COUNTY		
Operator: PHOENIX OPERATING LLC Address: 4643 S ULSTER STREET, SUITE 1510 City: DENVER State: CO Zip: 80237 Telephone Number: 855-868-4244			Unit Name (if applicable):		
Surface Location of Well (quarter-quarter and footage measurements): 485' FSL, 2416' FEL, SWSE, 35, T29N, R57E			Objective Formation(s): INYAN KARA		
Proposed Total Depth and Bottom-hole Location(s) if directional or horizontal well: 5537' MD, TVD			Township, Range, and Section: T29N, R57E, SECTION 35		
			County: ROOSEVELT		
			Elevation (indicate GL or KB): 2101' GL		
Size and description of drilling/spacing unit and applicable order, if any:		Formation at total depth:	Anticipated Spud Date:		
		INYAN KARA	3/1/2025		

Hole Size	Casing Size	Weight / Foot	Grade (API)	Depth	Sacks of Cement	Type of Cement
13.5	9.625	36	J-55	2100	884	BJ CEM TYPE III
8.75	7	23	L-80	5049	462	BJ CEM TYPE III
6	4.5	11.6	L-80	5537	0	UNCEMENTED

Describe Proposed Operations:
Describe or attach labeled diagram of blowout preventer equipment. Indicate if air drilled or describe mud program.
SEE ATTACHMENTS FOR DETAILS
PHOENIX OPERATING LLC REQUESTS A VARIANCE TO RUN OPEN HOLE LOGS ON THE SUBJECT WELL.

BOARD USE ONLY	
Approved (date) _____	Permit Fee _____
By _____	Check Number _____
Title _____	Permit Expires _____
	Permit Number _____
THIS PERMIT IS SUBJECT TO THE CONDITIONS OF APPROVAL STATED ON THE BACK API Number: 25 - _____ - _____	
The undersigned hereby certifies that the information contained on this application is true and correct: Signed (Agent) Title AUTHORIZED AGENT Date 10/28/2024 Telephone Number 435-789-1017	

Samples Required: **NONE** _____ ALL _____ FROM _____ feet to _____ feet
 Core chips to address below, full cores to USGS, Core Laboratory, Arvada, CO. Required samples must be washed, dried and delivered prepaid to:
 Montana Board of Oil and Gas Conservation
 2535 St. Johns Avenue
 Billings, MT 59102

RECEIVED

OCT 30 2024

MONTANA BOARD OF OIL & GAS CONSERVATION - BILLINGS

SUPPLEMENTAL INFORMATION

Note: Additional information or attachments may be required by Rule or by special request.

1. Attach a survey plat certified by a registered surveyor. The survey plat must show the location of the well with reference to the nearest lines of an established public survey.
2. Attach an 8 1/2 x 11" photocopy of that portion of a topographic map showing the well location, the access route from county or other established roads, residences, and water wells within a 1/2 mile radius of the well.
3. Attach a sketch of the well site showing the dimensions and orientation of the site, the size and location of pits, topsoil stockpile, and the estimated cut/fill at the corners and centerstake. (Note: the diagram need not be done by an engineer or surveyor). Attach a sketch of a top view and two side views of the reserve pit(s), if utilized. The reserve pit sketch must show the length, width, depth, cut and fill, amount of freeboard, area of topsoil stockpile, and the height and width of berms.
4. Describe the type and amount of material or liner, if any, to be used to seal the reserve pit. If a synthetic liner is used, indicate the liner thickness (mils), bursting strength, tensile strength, tear strength, puncture resistance, hydrostatic resistance, or attach the manufacturer's specifications.
5. Describe the proposed plan for the treatment and/or the disposal of reserve pit fluids and solids after the well is drilled. If the operator intends to dispose of or treat the reserve pit contents off-site, specify the location and the method of waste treatment and disposal. (Note: The operator must comply with all applicable federal, state, county, and local laws and regulations with regard to the handling, transportation, treatment, and disposal of solid wastes.)
6. Does construction of the access road or location, or some other aspect of the drilling operation require additional federal, state, or local permits or authorizations? If yes, indicate the type of permit or authorization required:
 - No additional permits needed
 - 310 Permit (apply through county conservation district)
 - Air quality permit (apply through Montana Department of Environmental Quality)
 - Water discharge permit (apply through Montana Department of Environmental Quality)
 - Water use permit (apply through Montana Department of Natural Resources and Conservation)
 - Solid waste disposal permit (apply through Montana Department of Environmental Quality)
 - State lands drilling authorization (apply through Montana Department of Natural Resources and Conservation)
 - Federal drilling permit (specify agency)
 - Other federal, state, county, or local permit or authorization: (specify type) _____

NOTICES:

1. Date and time of spudding must be reported to the Board verbally or in writing within 72 hours after the commencement of drilling operations.
2. The operator must give notice of drilling operations to the surface owner as required by Section 82-10-503, MCA, before the commencement of any surface activity.

BOARD USE ONLY

CONDITIONS OF APPROVAL

The operator must comply with the following condition(s) of approval:

WARNING: Failure to comply with conditions of approval may void this permit.

UELS, LLC

MONTANA BOARD MONTANA BOARD OF OIL & GAS CON 0023786

10/28/2024

27948

REFERENCE	INVOICE NUMBER	INV DATE	INVOICE AMOUNT	ADJUSTMENT	DISCOUNT	WRITE OFF	NET AMOUNT PAID
0027780	PHOENIX-RONIN1SWD	10/28/2024	\$150.00	\$150.00	\$0.00	\$0.00	\$150.00
			\$150.00	\$150.00	\$0.00	\$0.00	\$150.00

THIS CHECK IS VOID WITHOUT A BLUE & RED BACKGROUND AND A WATERMARK - HOLD UP TO THE LIGHT TO VERIFY



UELS, LLC
85 South 200 East
Vernal, UT 84078

ZIONS FIRST NATIONAL BANK
VERNAL OFFICE 3 WEST MAIN
VERNAL, UT 84078

31-5/1240

27948

DATE	10/28/2024
AMOUNT	\$150.00

PAY ONLY **150.00** CENTS

PAY One Hundred Fifty Dollars and 00 Cents

TO THE ORDER OF

MONTANA BOARD OF OIL & GAS CON
2535 ST. JOHNS AVENUE
BILLINGS MT 59102

CHECK IS PRINTED ON SECURITY PAPER WHICH INCLUDES A MICROPINT BORDER & FLUORESCENT FIBERS

⑈027948⑈ ⑆24000054⑆002246551⑈

RECEIVED

OCT 30 2024

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

**State of Montana
Board of Oil & Gas**

RECEIVED

OCT 30 2024

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

**Docket No: _____
Underground Injection Control Application**

**Ronin 1 SWD
Section 35, T29N, R57E**

**Phoenix Operating LLC
December 5, 2024**

**Phoenix Operating LLC
RONIN PAD
SHL: 448' FSL & 2416' FEL
SWSE, SECTION 35, T29N, R57E P.M.M.
ROOSEVELT COUNTY, MONTANA**

RECEIVED

OCT 30 2024

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

The following is submitted in support of our application to permit the drilling and completion of the Ronin 1 SWD well for the purposes of water injection into the Dakota Group and related rocks within the proposed Wildcat field, Roosevelt County, as required by rule 36.22.1403 of the Rules and Regulations of the Montana Board of Oil & Gas Conservation.

UIC PERMIT APPLICATION

1(a) Location:

The Ronin 1 SWD well has been proposed for the drilling and completion of a water injection well within the Wildcat field in Roosevelt County, Montana as described below. Attachment I depicts the surface hole location and a quarter $\frac{1}{4}$ -mile radius representing the area of review (AOR) for this vertical well.

1(b) Well Location Description:

The Ronin 1 SWD well is a proposed disposal well located in Section 35, T29N, R57E, P.M.M. in Roosevelt County Montana. The surface ownership of this well site is located on Fee/Fee and is owned by Richard and Diane Hansen.

1(c) Maps of Wells/Area of Review:

There are currently no oil and gas wells within the $\frac{1}{4}$ -mile AOR. Phoenix will drill four (4) horizontal oil wells at this location in the 4th quarter of 2024.

1(d) Location of all Pipelines:

The Ronin 1 SWD surface facilities will be constructed on the same pad as the injection well. Injection fluids will come from the oil wells both being currently drilled and proposed for this location. The Ronin 1 SWD may be tied into Phoenix's pending saltwater gathering system in the future.

1(e) Area Producing Formations, Fresh Water Aquifers and Water Well information:

The Three Forks (Bakken) formation is not currently being produced within the quarter mile AOR of the proposed Ronin 1 SWD. Operator anticipates the Three Forks (Bakken) to produce between 10,045' and 10,077' TVD when the wells on the Ronin pad are POL.

Fresh water well data was obtained from the Montanan Department of Natural Resources and Conservation, Water Resources, Division. There are no water wells within the ¼ -mile AOR of the proposed injector.

Any potential USWDs are protected from the proposed injection zone by surface casing set at 2,100' and cemented to the surface. A production tubing string and an injection packer will result in further isolation of fresh USWDs from injected fluids.

1(f) Name and Geological Description of Injection Zone:

Injection Zone:

The Inyan Kara within the Lower Cretaceous Dakota Group is roughly 518' thick based on the Barr Enoch L 1-26 (25085212760000). The Inyan Kara formation consists of alternating fluvial deltaic sandstones, siltstones and shales. There are several porosity intervals between 5,049' and 5,567' TVD with sandstone packages ranging in thickness from 5' to 80'.

Upper Confining Zone:

The Mowry formation within the lower Cretaceous Dakota Group is made up of shales and bentonitic claystone of offshore marine origin. The Mowry is expected between 4,631' TVD and 5,049' TVD and is approximately 418' thick and overlies the Inyan Kara. The Mowry confines the upper boundary for the Inyan Kara.

Lower Confining Zone:

The Jurassic Swift formation lies conformably below the Inyan Kara. The Swift is made up of shallow marine shale and siltstone and is approximately 544' thick in this area. The Swift is expected at a depth of 5,567' TVD through 6,111' TVD. The Swift confines the lower boundary for the Inyan Kara.

All TVD depths are based on a 15' KB rig.

The offset wells did not have porosity logs for the shallow section, but clean GR and low resistivity equates to porosity in the Inyan Kara Formation.

1(g) Open Hole Logs:

The Ronin 1 SWD will be a new drill SWD. The logging program will consist of a CBL-VDL-GR-CCL log ran from TD to Surface, along with Triple Combo + MWD-GR log ran from the base of surface casing to surface. Any logs and test data run on the Ronin 1 SWD will be supplied to the MBOGC.

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1(h) Description of Wellbore Construction:

Attached to this document is the MBOGC's Form 2 and wellbore configuration, requesting drilling and completing of the subject well as an SWD. Appendix V shows the proposed wellbore design. Perforations will be selected after logs are run. Section 6 of the Drilling Plan describes the plan for drilling and completion for the subject well. The Dakota Group perforations will be acidized with 15% HCl and rock salt or polymer diverter at the wellhead during stimulation.

1(i) Description of Injection Fluid:

The Ronin 1 SWD will be used to inject produced water from Phoenix operated wells producing from the Three Forks (Bakken) formation drilled on the well pad. See Appendix VIII, which represents a water analysis from a Bakken well in the area that will be injected at the Ronin 1 SWD. Due to limited Three Forks (Bakken) produced water availability within the area of review, Phoenix Operating LLC proposes to utilize produced water collected from a nearby producing well as the source water for injection. Samples were collected from the Milloy 10-3-24 #2H well, located NENE, Section 15, T155N, R104W, Williams County, North Dakota approximately 7 miles South, and have been provide in Appendix VII. Samples were also collected from the Snyder 1-12 #1H well, located in Lot 12, Section1, T28N, R57E, Roosevelt, Montana, approximately 2 miles south west. Water samples from the Snyder 1-12 #1H are being analyzed, and will be provided once received.

Average and maximum daily volumes of injected water are expected to be 17,500 bbls per day and 20,000 bbls per day respectively, depending on production from wells, storage capabilities of the facility, and final maximum allowable injection pressure (MAIP).

Surface injection pressures will not be allowed to exceed a maximum based on the EPA accepted fracture grading of 0.733 psi/ft and the following equation:

$$MAIP = (FG)*(D_{Top}) - (SG)*(NPG)*(D_{Top})$$

- MAIP = Maximum allowable injection pressure
- FG = Assumed fracture gradient in Confining Zone – Shale = 0.8 psi/ft
- SG = Specific Gravity of injection fluid = 1.21
- NGP = Normal pressure gradient = 0.433 psi/ft
- D_{Top} = Depth to top of the injection zone = 5,049'

$$MAIP = (0.8 \text{ psi/ft} * 5,049 \text{ ft}) - (1.21 * 0.433 \text{ psi/ft} * 5,049 \text{ ft}) = 1,393 \text{ psi}$$

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1(j) Names of Owner of Record:

The surface owners and mineral owners are within the AOR are presented in Appendix IX. Phoenix Operating LLC has notified the current operators, surface owners and lease owners in accordance with 36.22.1410, notification requirements for an underground injection permit. Appendix X is an affidavit attesting to the fact that notices have been mailed.

List of Appendices/Attachments:

- I** ¼ -Mile Area of Review Map
- II** Plat of SWD Location
- III** Representative Log
- IV** Sundry Notices
- V** Proposed Drilling & Completion Procedure
- VI** Proposed Wellbore Schematic/Directional Plan
- VII** SWD Layout Diagram
- VIII** Water Analysis – Source Waters
- IX** List of Surface Owners/Mineral Owners in ¼ -Mile AOR
- X** Affidavit of Notification to Landowners
- XI** Example of Landowner Notifications of Application for Injection
- XII** Notice of Intention to Apply for a Class II Well
- XIII** Affidavits of Publication

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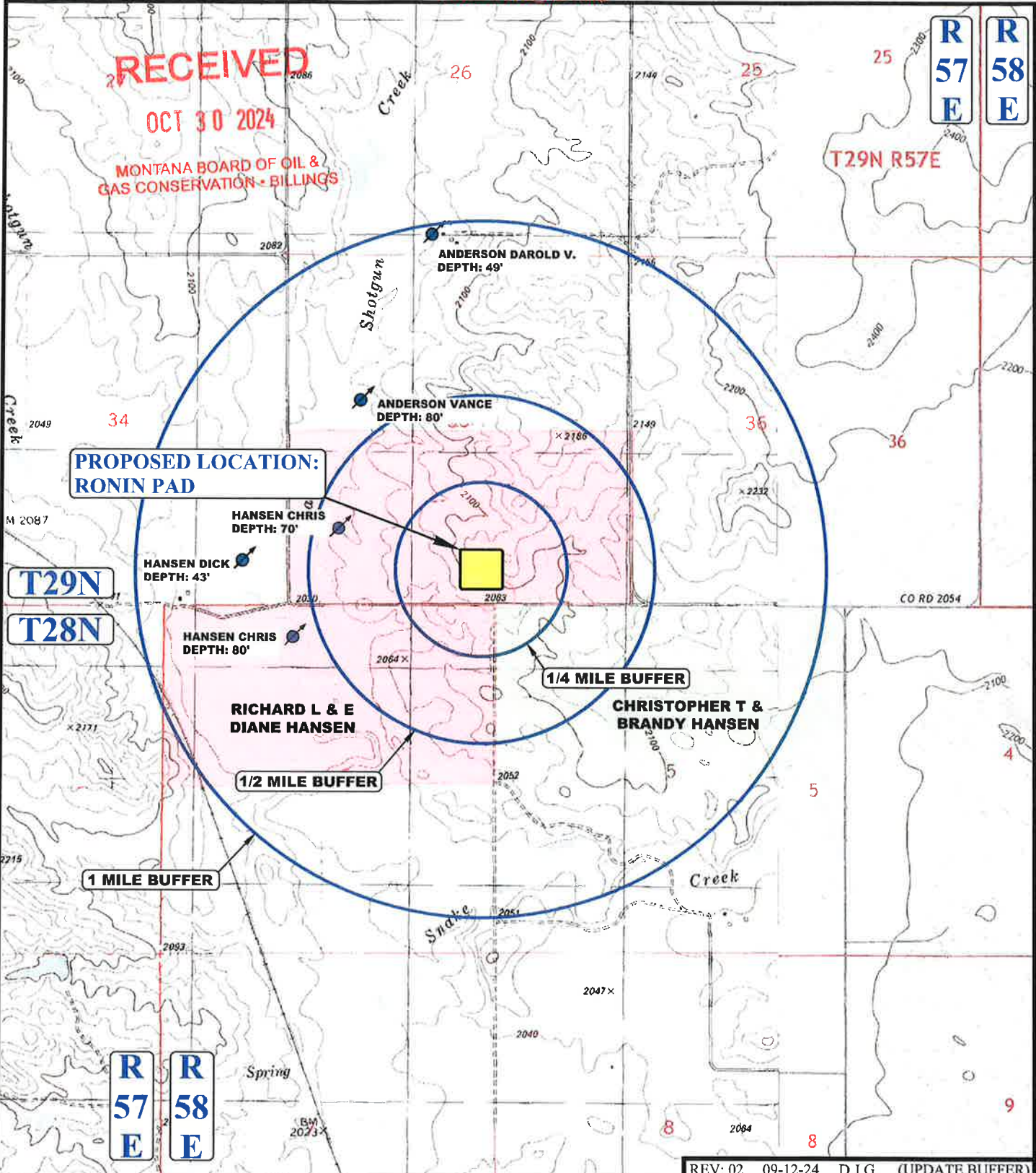
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R 57 E
R 58 E

T29N R57E



**PROPOSED LOCATION:
RONIN PAD**

1/4 MILE BUFFER

1/2 MILE BUFFER

1 MILE BUFFER

T29N

T28N

R 57 E
R 58 E

REV: 02 09-12-24 D.J.G. (UPDATE BUFFER)

LEGEND:

WATER WELLS



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



PHOENIX OPERATING LLC

RONIN PAD
SW 1/4 SE 1/4, SECTION 35, T29N, R57E, P.M.M.
ROOSEVELT COUNTY, MONTANA

SURVEYED BY	C.B., D.D.	06-03-24	SCALE
DRAWN BY	K.C.	06-27-24	1 : 24,000
WELL PROXIMITY MAP			TOPO C

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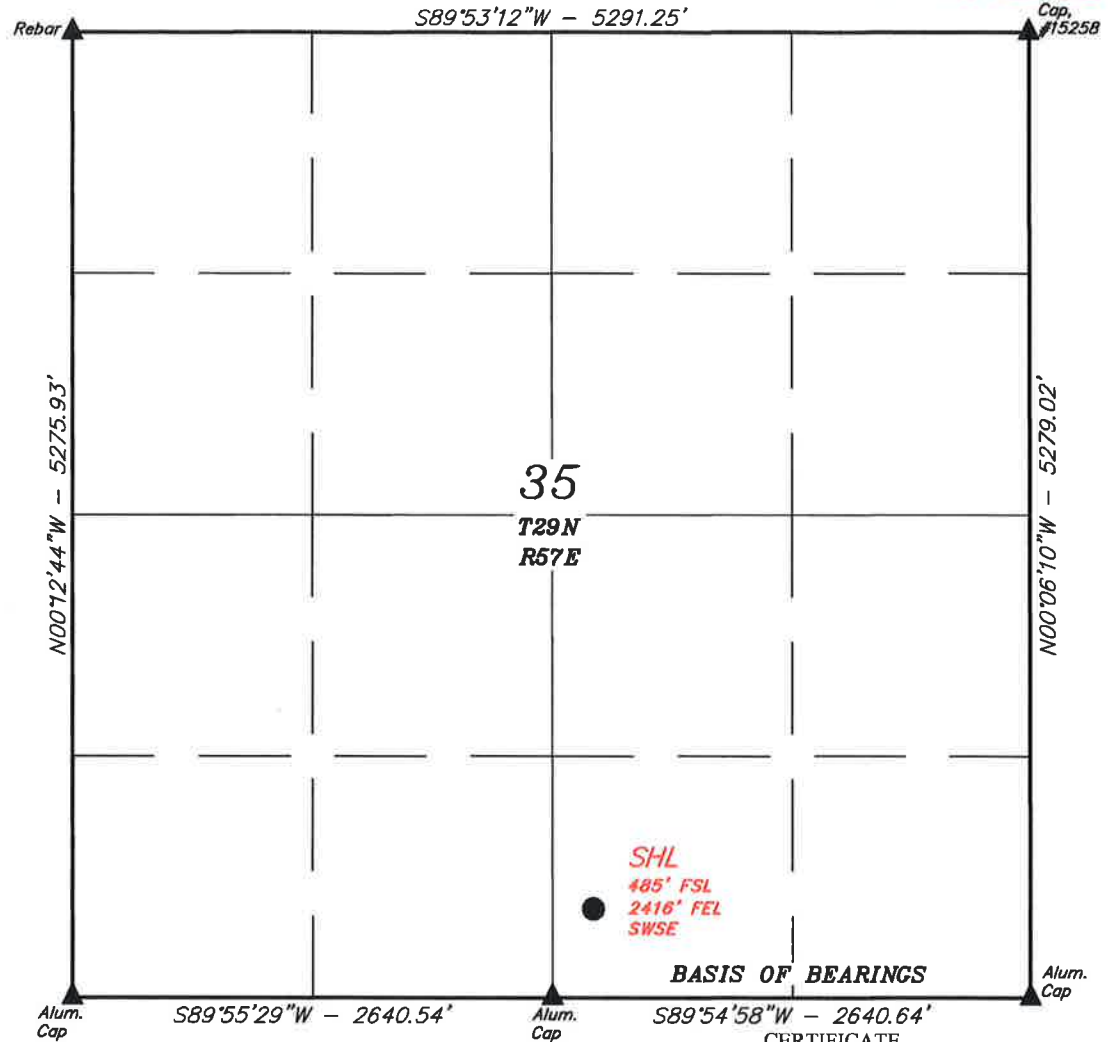
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LEGEND:

- = PROPOSED WELLHEAD.
- ▲ = SECTION CORNERS LOCATED.

NOTE: Distances referenced on plat to section lines are perpendicular.

III. Ronin 1 SWD Representative Log



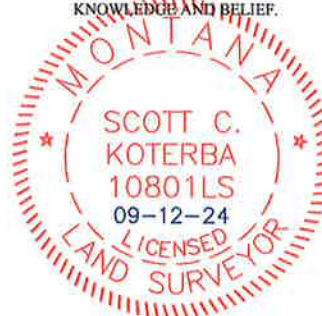
35
T29N
R57E

SHL
485' FSL
2416' FEL
SWSE

BASIS OF BEARINGS

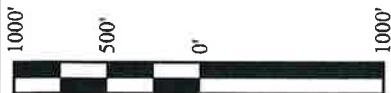
CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



Scott C. Koterba

SCOTT C. KOTERBA
REGISTERED LAND SURVEYOR
REGISTRATION NO. 10801LS
STATE OF MONTANA



EXISTING GROUND ELEVATION = 2101.2'

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 48°13'00.86" (48.216906°)
LONGITUDE = -104°16'10.53" (-104.269591°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 48°13'00.79" (48.216885°)
LONGITUDE = -104°16'08.73" (-104.269091°)

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION



PHOENIX OPERATING LLC

RONIN SWD
SW 1/4 SE 1/4, SECTION 35, T29N, R57E, P.M.M.
ROOSEVELT COUNTY, MONTANA

SURVEYED BY	C.B., D.D.	06-03-24	SCALE
DRAWN BY	D.J.G.	09-12-24	1" = 1000'

WELL LOCATION PLAT

PHOENIX OPERATING COMPANY



UELS, LLC
Corporate Office
85 South 200 East
Vernal, UT 84078
(435) 789-1017

III. Representative Log

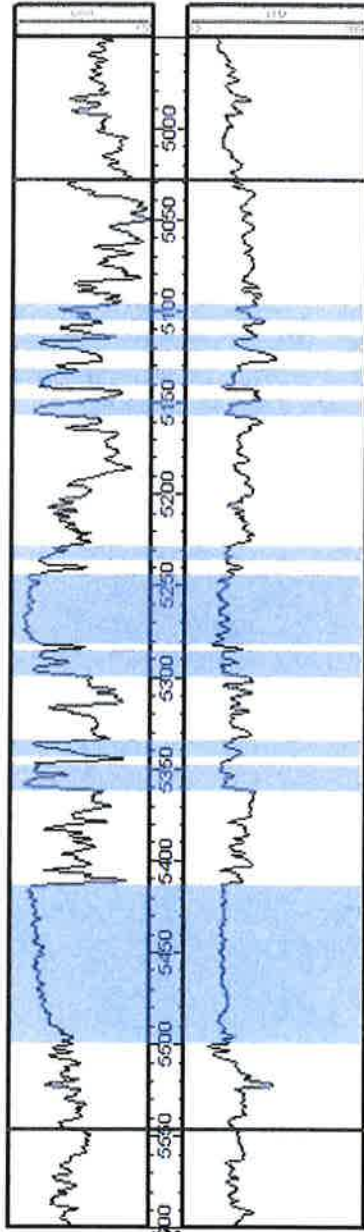
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1.26
BARR ENOCH L
SOUTHLAND ROYALTY CO
25085212760000
T29N R57E S28

INKR



SWIFT

FORM NO. 2 R 10/09

ARM 36.22.307, 601, 605,
1003, 1004, 1011, 1013,
1103, 1222, 1240, 1301,
1306, 1309, and 1417

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Submit In Quadruplicate To:

**MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE
BILLINGS, MONTANA 59102**

SUNDRY NOTICES AND REPORT OF WELLS

Operator PHOENIX OPERATING LLC
Address 4643 ULSTER STREET, SUITE 1510
City DENVER State CO Zip Code 80237
Telephone 855-868-4244 Fax

Lease Name:
RONIN
Type (Private/State/Federal/Tribal/Allotted):
PRIVATE

Well Number:
1 SWD

Location of well (1/4-1/4 section and footage measurements):
485' FSL 2416' FEL
SWSE SECTION 24, T30N, R59E

Unit Agreement Name:

Field Name or Wildcat:
WILDCAT, ROOSEVELT

Township, Range, and Section:
T29N, R57E, SECTION 35

API Number:
25
State County Well

Well Type (oil, gas, injection, other):
INJECTION

County:
ROOSEVELT

Indicate below with an X the nature of this notice, report, or other data:

- Notice of Intention to Change Plans
- Notice of Intention to Run Mechanical Integrity Test
- Notice of Intention to Stimulate or to Chemically Treat
- Notice of Intention to Perforate or to Cement
- Notice of Intention to Abandon Well
- Notice of Intention to Pull or Alter Casing
- Notice of Intention to Change Well Status
- Supplemental Well History
- Other (specify) INTENT TO DRILL & COMPLETE
- CLASS II INJECTION WELL

- Subsequent Report of Mechanical Integrity Test
- Subsequent Report of Stimulation or Treatment
- Subsequent Report of Perforation or Cementing
- Subsequent Report of Well Abandonment
- Subsequent Report of Pulled or Altered Casing
- Subsequent Report of Drilling Waste Disposal
- Subsequent Report of Production Waste Disposal
- Subsequent Report of Change in Well Status
- Subsequent Report of Gas Analysis (ARM 36.22.1222)

Describe Proposed or Completed Operations:

Describe planned or completed work in detail. Attach maps, well-bore configuration diagrams, analyses, or other information as necessary. Indicate the intended starting date for proposed operations or the completion date for completed operations.

PHOENIX OPERATING LLC RESPECTFULLY REQUEST APPROVAL TO DRILL & COMPLETE A DISPOSAL WELL AT THE REFERENCED LOCATION FOR INJECTION OF CLASS II E&P WASTES. NOTICES HAS BEEN PROVIDED TO PARTIES WITHIN 1/4 MILE AREA OF REVIEW OF THE PROPOSED LOCATION. AN APPLICATION FOR HEARING ON THE MONTANA BOARD OF OIL & GAS CONSERVATION DOCKET. HAS BEEN REQUESTED FOR DECEMBER 5, 2024.
PHOENIX OPERATING LLC REQUESTS A VARIANCE TO NOT RUN OPEN HOLE LOGS ON THE SUBJECT WELL.

BOARD USE ONLY

Approved _____
Date _____
Name _____ Title _____

The undersigned hereby certifies that the information contained on this application is true and correct:

10 28 2024 Amy Doebele
Date Signed (Agent)

AMY DOEBELE, AUTHORIZED AGENT

Print Name and Title

Telephone: 435-789-1017

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**Phoenix Operating LLC
Drilling Plan**

Ronin 1 SWD

**SWSE Sec 35, T29N-R57E
485' FSL 2416' FEL
Roosevelt County, MT**

1. Estimated Formation Tops

Formation	MD	TVD	Comments
Pierre Shale	1920'	1920'	9-5/8" surface casing set at 2,100' & cemented to surface.
Greenhorn	4326'	4326'	
Mowry	4631'	4631'	
Inyan Kara	5049'	5049'	
Swift	5567'	5567'	
Planned TD	5537'	5537'	

Formation elevations are based on a finished pad elevation of 2,109' and a KB elevation of 2,124' (15' rig substructure height).

2. BOP and Pressure Containment Data

Depth Intervals	BOP Equipment
0' to 2,100'	13-1/2" surface hole. No pressure control equipment utilized.
2,100' to TD	11", 3,000 psi Hydraulic Double Ram Type BOP's 11", 3,000 psi Annular BOP
Drilling spool to accommodate choke and kill lines.	
Ancillary equipment and choke manifold to be rated to 3,000 psi. All BOP tests will be performed in accordance with the requirements of onshore order No 2.	
BOP handwheels may be under and or within the substructure of the rig if the drilling used is set up to operate most efficiently in this manner.	

Auxiliary equipment:

- a) Upper and lower Kelly cock will be installed while drilling.
- b) Inside BOP or stab-in valve will be available on rig floor.
- c) Safety valve(s) and subs to fit all string connections will be on floor during drilling operations.
- d) Mud monitoring will be visually observed.

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3. Casing & Cement Programs

a) The proposed casing program is as follows:

	Hole Size	Casing Depth		Casing Details					Cmt
		From	To	OD	Weight	Grade	Cplg	Condition	Cmt Top
Conductor	16"	0'	80'	20"	84#	J-55		New	Surface
Surface	13-1/2"	0'	2100'	9-5/8"	36#	J-55	LTC	New	Surface
Intermediate	8-3/4"	0'	5049'	7"	23#	L-80	LTC	New	2,100'
Production	6"	4999'	5537'	4.5"	11.6#	L-80	BTC	New	Un-Cemented

b) Cementing Program:

9-5/8" Surface Casing	Cement Details
TOC at Surface – 55% excess.	Lead: 613 sx (226 bbls) of 12.5 lb/gall, 2.08 ft ³ /sx BJ CEM S100 Type III with 0.13 lb/sx Celloflake, 2.0 lbs/sx CaCl ₂ , 2.0 lbs/sx Sodium Metasilicate, 5% Gypsum and 0.3% Anti-foaming agent (FP-25).
TOC at 1,800' -55% excess.	Tail: 271 sx (71bbls) of 14.2 lb/gall, 1.99 ft ³ /sx BJ CEM S100 Type III with 0.13 lb/sx IntegraSeal, 2.0 lbs/sx Sodium Metasilicate, 5% Gypsum (BWOB) and 0.3% FP-25 (defoamer, BWOB).

7" Intermediate Casing	Cement Details
TOC at 2,100' (BSC) – 65% excess.	Lead: 295 sx (114.5 bbls) of 12.0 lb/gall, 1.46 ft ³ /sx BJ CEM I100 Type III with 0.25 lb/sx IntegraSeal, 5 lb/sx BA-95 (bonding agent) 3% KCL (BWOW), 0.1% R-7C (retarder), 0.4%FL-66 (fluid loss), 0.30% R-3 (retarder) and 0.1% IntegraGuard GW-86 (scavenger). Additives by BWOB.
TOC at 4,150' – 40% excess.	Tail: 167 sx (42.8 bbls) of 14.0 lb/fall, 1.44 ft ³ /sx BJ CEM I100, 20% Fly Ash, 80% Class G, 0.13 lb/sx IntegraSeal Cellophane, 1.0 lb/sx IntegraSeal Pheno, 0.1% IntegraGuard GW-86 (scavenger), and 0.4% FI-66 (fluid loss). Additives by BWOB

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From:		To:	
Spud (0')		2,100' 13 1/2" Surface Hole, Fresh Water, Gel & Lime Sweeps	
MW, ppg:	8.5 to 9.0	PV, cp:	0 to 25
YP, lb/100 ft ²	0 to 8	pH:	7.0 to 8.5
Funnel Vis, sec:	28 to 50	LGS:	LT 6%

Note: If shallow surface sand or gravel is encountered, rig will mud-up with gel (increase viscosity).

From:		To:	
2,100'		5,049' 8-3/4" Production section – Oil Based Mud	
MW, ppg:	9.2 to 10.0	Elec Stability, v:	400 to 600
YP, lb/100 ft ² :	4 to 12	PV, cp:	12 to 25
Funnel Vis, sec:	40 to 50	HTHP WL, cc:	10 to 20
Oil Water Ratio:	70/30 to 80/20	Chlorides, ppm:	30,000 to 50,000
LGS:	LT 6%	NaCl, mg/l:	250,000 to 300,000

Cuttings Plan: Closed loop system will be utilized during surface and production drilling operations. All drill cuttings will be disposed of at 13 Mile Landfill, Williston, ND.

5. Evaluation Program

Cores:	No Coring is planned.
Testing:	No DST's are planned.
Samples:	No cuttings are planned to be collected on this well.
Surveys:	MWD will be utilized from surface to TD. Surveys will be taken on a 30' survey interval after entering the Mowry.

The logging program will be as follows:

Depth Interval	Depth Interval
Base of surface casing to TD	GR
7", Production casing (TD to surface)	CBL-GR

Directional Planning / Anit-Collision:

The Ronin 1 SWD well is planned as a vertical well with a 50 ft target radius from the wellhead. anti-collision avoidance modeling will be completed before spud. Anti-Collision reports will be based on known offset wells to Phoenix Operating LLC within the vicinity of the planned wellbore path.

6. Drilling/Completion Program:

1. Move in drilling rig (Notify State Inspector prior to spud).
2. Pick up BHA and drill the Surface interval as follows:
 - a. 13-1/2" Bit and MWD/Directional Tools.
 - b. Fresh water will be utilized.
 - c. Drill approx. 150' into the Pierre Shale formation.
3. At TD circulate to condition hole.
4. TOOH and lay down BHA
5. Run 9-5/8" J55-36# LTC casing.

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- a. Centralizers on bottom 3 joints minimum.
- b. Float shoe and float collar to be utilized.
6. Pump surface casing cement job per cementing program.
 - a. Spacer, Lead Slurry, Tail Slurry, Displace with fresh water.
7. Pressure test surface casing (Required pressure & time).
8. Install Wellhead and BOP.
 - a. Nipple up 3M BOP stack and test per BLM Onshore Order No. 2.
 - b. Install wear-bushing.
9. Pick up BHA and drill the Production interval as follows:
 - a. 8 3/4" bit and MWD/Directional tools.
 - b. *MWD gamma every 30' after entering the Mowry.*
 - c. Oil-based drilling fluid will be utilized.
 - d. Drill to the top of the Inyan Kara formation ~5049' TVD.
10. At TD circulate to condition hole and make a wiper trip to the surface shoe.
11. TOOH and lay down BHA.
12. Run 7" L80 – 23# LTC casing.
 - a. Casing will be centralized.
 - b. Float shoe and Float collar to be utilized.
13. Pump Intermediate cement per cementing program.
 - a. Spacer, Lead Slurry, Tail Slurry, Displace with salt water.
14. Wait on cement prior to drilling out 7" shoe and drilling 6" open hole section.
15. Run CBL on 7" casing, from PBTD to surface. CBL must be reviewed prior to drilling out the shoe.
 - a. If unable to get to the bottom with CBL tools a clean out will be required.
 - b. *CBL on the Intermediate casing must be completed prior to starting drilling of the open hole and submitted to the State for review prior to running the 4 1/2" liner.*
16. Pressure test production casing to 1500 psi.
17. Once CBL has been reviewed, pick up BHA and drill the Open-Hole interval as follows:
 - a. 6" bit and MWD/Directional tools.
 - b. *MWD gamma every 30' after entering the Mowry formation.*
 - c. *A geologist must be onsite to catch samples every 30' once in the Inyan Kara formation.*
 - d. Brine drilling fluid will be utilized.
 - e. Drill to a maximum of ~5,537' TVD. Approximately 30' above the top of the Swift formation.
 - f. *If it is suspected that the Swift is encountered while drilling, there will be an all stop for evaluation.*
18. At TD circulate to condition hole.
19. TOOH and lay down BHA.
20. Run 4 1/2" P-110-11.6# BTC pre-perforated liner.

DESCRIPTION	OD	ID
5" ID x 8' Polished Bore Receptacle (PBR)	5.750"	5.000"
4 1/2" x 7" OptiPak Liner Hanger Packer BTC pin	5.875"	3.920"
1 Jts 4 1/2" 11.6# IPC Blank BTC Liner	5.000"	4.000"
1 Jts 4 1/2" 11.6# Blank BTC Liner	5.000"	4.000"
~ 7 - 8 Jts 4 1/2" 11.6# Pre-Perf BTC Liner	5.000"	4.000"
Guide Shoe Joint w/ Aluminum Nose and Side Ports	5.000"	750"

- a. 4 1/2" nickel plated, Liner Hanger and packer will be set within 100' of the open hole in 7" casing with good cement bond.
- b. Run 4 1/2" Blank to below 7" shoe.
21. TOOH and lay down drill pipe and liner tools.
22. Secure well and release drilling rig.
23. Install 7 1/16" – 5M tubing head and master valve.
24. MIRU service rig. Install and test BOPs.

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25. Recover Dakota water sample from formation.
 - a. Check pressure and attempt to establish flow from the Dakota.
 - b. If flow is established, flow fluid to surface and recover a fluid sample.
 - c. If unable to recover fluid, RIH with 2 7/8" tubing and packer. Set packer above the liner top and attempt to swab the well to recover formation fluids to surface.
 - d. If unable to recover fluid samples at surface, RIH with wireline and recover a downhole sample.
 - e. Take samples to lab for full water analysis.
26. Run 3 1/2" L80-9.3# BTC Internally Plastic-Coated tubing.
 - a. Seal assembly ran and stung into PBR at liner top.
 - b. Land tubing hanger in wellhead with tubing in 45k compression.
27. Perform MIT on tubing annulus, seal assembly and packer.
 - a. *Notify State inspector prior to performing MIT. Inspector must witness MIT.*
 - b. *MIT to 1000 psi for 15 minutes, or as directed by the State inspector.*
28. RDMO rig and service equipment.
29. Install 4 1/16" – 5M master valve.
30. Install flowlines from facility to wellhead.
 - a. *Flowlines must be pressure tested to 100 psi above the permitted MASP from the Injection Pump to the Wellhead prior to injection.*
 - b. *Pressure test results must be reported to the NDIC via sundry.*
31. Begin injection test.
32. Acidize well as needed to improve injection.
 - a. Acidize with 15% HCl and rock-salt or polymer diverter.

7. Abnormal Pressure and H2S Gas

No abnormal pressure, temperatures or other hazards are anticipated. H2S gas is not expected to be encountered in this wellbore. However, precautions will be taken to monitor for H2S while drilling the vertical section.

8. Hydraulic Fracturing Stimulation – N/A

No hydraulic fracturing will be attempted on this wellbore.

9. Contact Information:

Phoenix Operating LLC
4643 South Ulster Street, Suite 1510
Denver, CO 80237
Attn: Mark Johnson
Email mjohnson@phxoperating.com
303.548.1953

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PHOENIX | OPERATING COMPANY

Ronin 1 SWD

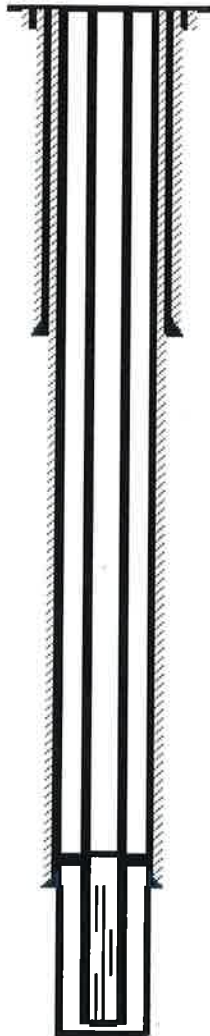
Inyan Kara Injection

Roosevelt County, Montana

SHL: 485ft FSL & 2206ft FEL of Sec 35-T29N-R57E

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

Proposed Vertical Wellbore



Wellhead Description

Cameron 7 1/16" - 5M

Casing Description

String	Size	Weight	Grade	Cplg	Top	Bottom	Hole Size	Cement Top
Conductor	16"	84#	J-55		0'	80'	20"	Surface
Surface	9 5/8"	36#	J-55	LTC	0'	2100'	13 1/2"	Surface
Intermediate	7"	23#	L-80	LTC	0'	5049'	8 3/4"	2100'
Liner	4 1/2"	11.6#	L-80	BTC	4999'	5537'	6"	Un-Cemented

*7" Casing set and cemented at the top of the Dakota formation

*Shoe-Track consists of one 7" Single-Valve Float Shoe, one joint of 7" casing, and one 7" Single-Valve Float Collar. Shoe-Track will be cemented from the Float Shoe to the Float Collar (~40').

*4 1/2" liner will be ran with a liner hanger and liner-top packer

*4 1/2" liner-top packer will be set no greater than 100' above the 7" shoe in good cement verified by CBL

Tubing Description (Est'd Depth - Top of Liner)

Size	Weight	Grade	Cplg	Top	Bottom
3 1/2" IPC	9.3#	L-80	EUE	0'	4999'

*Tubing ran with a seal assembly stung into PBR in liner top

*MIT performed to 1000 psi on tubing annulus, packer and seal assembly

6" OH - Perforated Liner

Formation	Top	Bottom	Stimulation
Dakota	5049'	5537'	15% HCl + Rock Salt or Polymer Diverter

TMD 5537'
TVD 5537'

*Above depths are Measured Depths from KB

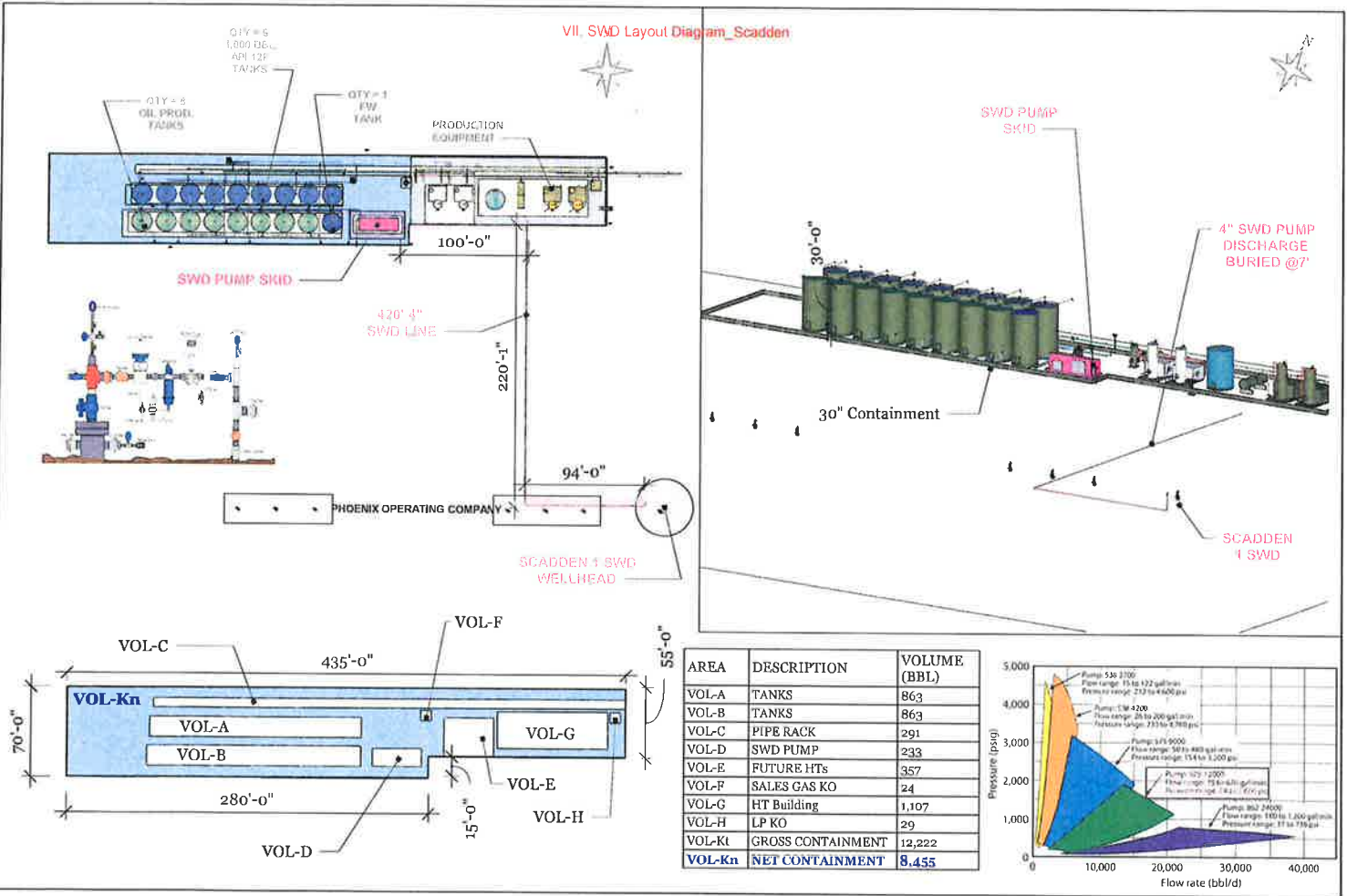
*TD at least 30' above the top of the Swift formation

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VII. SWD Layout Diagram_Scadden



SWD FACILITY LAYOUT DIAGRAM

PHOENIX OPERATING COMPANY
SCADDEN SOUTH PAD

SCADDEN 1 SWD

REVISIONS	
MM/DD/YY	REMARKS
09/05/24	SS - Initial Draft

A 01



MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 North Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.MVTL.com



Account #: 23037 **Client:** Astro-Chem Laboratory, Inc.
Workorder: Milloy 10-3-24 #2H Well Pad (65921)

Brenda Benth
Astro-Chem
4102 2nd Ave W
Williston, ND 58801

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Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

A handwritten signature in black ink that reads "Stacy Zander".

Stacy Zander, Bismarck Assistant Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Report Date: Wednesday, October 2, 2024 4:29:04 PM



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 1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
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Account #: 23037

Client: Astro-Chem Laboratory, Inc.

Analytical Results

Lab ID: 65921001 **Date Collected:** 09/21/2024 10:30 **Matrix:** Groundwater
Sample ID: Treater (Production Water) **Date Received:** 09/27/2024 10:55 **Collector:** Client

Temp @ Receipt (C): 21.0 **Received on Ice:** No

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
-----------	---------	-------	-----	----	----------	----------	------

Method: ASTM D1298

Density	1.210 @ 65.0 F	g/cm3		1		10/01/2024 11:30	
Specific Gravity	1.210 @ 65.0 F	at 60/60F		1		10/01/2024 12:24	

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VIII. Water Analysis - Source Waters

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Account #: 23037

Client: Astro-Chem Laboratory, Inc.

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Chain of Custody & Analysis

Astro-Chem Laboratory, Inc.
WO: 65921



Page 1 of 1

Account Information (Billing information) and Report Information (if different) sections containing company names, contact info, and addresses for Astro-Chem Lab and Phoenix Operating.

Project Information section including Project Name (Milloy 10-3-24 #2H Well Pad), Sampler Name (Dave Scadden), and Matrix Codes (A-Air, W-Water, etc.).

Table with columns for Sample Identification, Collection (Date/Time), Matrix, and Analysis Requested. Row 1: Treater (Production Water), 09/21/2024, 10:30 am, 1 W, Specific Gravity and Density checked.

Custody Record and Laboratory Use Only section with signatures of Dave Scadden and Christina Jungels, dated 09/24/2024. Includes fields for Shipped By, Cooler ID, Custody Seals, Inlet, Receipt Temp (21.0°C), Temp Blank, On Ice, Payment Type (Cash), Amount, and Receipt Number.

In certain circumstances, samples submitted to Astro-Chem Lab, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly noted on your analytical report.

EU-COC-01/21 v.4

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Report Date: Wednesday, October 2, 2024 4 29 04 PM



October 10, 2024

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Christina Jungels
Astro-Chem Lab, Inc.
4102 2nd Ave. W.
Williston, ND 58801

RE: Project: Phoenix Operating, LLC
Pace Project No.: 10709475

Dear Christina Jungels:

Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis
- Pace Analytical Services - Ormond Beach

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Andrea Richardson

Andrea Richardson
andrea.richardson@pacelabs.com
(218)341-6080
Project Manager

Enclosures

cc: Accounts Payable, Astro-Chem Lab, Inc.



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

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Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240

Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

Pace Analytical Services Ormond Beach

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
California Certification# 3096
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
DoD-ANAB #:ADE-3199
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL01264
Maryland Certification: #346
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710

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CERTIFICATIONS

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

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Pace Analytical Services Ormond Beach

North Dakota Certification #: R-216
Ohio DEP 87780
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity
Utah FL NELAC Reciprocity
Utah
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
10709475001	Milloy 10-3-24 #2H Well Pad	Water	09/21/24 10:30	09/26/24 08:50

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SAMPLE ANALYTE COUNT

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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10709475001	Milloy 10-3-24 #2H Well Pad	EPA 6010D	DM	9	PASI-M
		SM 2320B	KEO	3	PASI-M
		SM 2540C	JKH	1	PASI-M
		SM 4500-H+B	KEO	1	PASI-M
		EPA 120.1 Resistivity	SWB	1	PASI-O
		SM 2510	KEO	1	PASI-M
		ASTM D5057	JKH	1	PASI-M
		EPA 300.0	JFP	2	PASI-M
		EPA 353.2	JFP	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis
PASI-O = Pace Analytical Services - Ormond Beach

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ANALYTICAL RESULTS

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

MONTANA BOARD OF OIL &
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Sample: Millroy 10-3-24 #2H Well Pad Lab ID: 10709475001 Collected: 09/21/24 10:30 Received: 09/26/24 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Barium	24000	ug/L	500	10	09/30/24 13:03	10/01/24 12:05	7440-39-3	
Calcium	16200000	ug/L	25000	10	09/30/24 13:03	10/01/24 12:05	7440-70-2	
Chromium	ND	ug/L	500	10	09/30/24 13:03	10/01/24 12:05	7440-47-3	D3
Iron	127000	ug/L	2500	10	09/30/24 13:03	10/01/24 12:05	7439-89-6	
Magnesium	1250000	ug/L	25000	10	09/30/24 13:03	10/01/24 12:05	7439-95-4	
Potassium	8070000	ug/L	125000	10	09/30/24 13:03	10/01/24 12:05	7440-09-7	
Sodium	89500000	ug/L	500000	100	09/30/24 13:03	10/01/24 12:10	7440-23-5	
Strontium	1310000	ug/L	2500	100	09/30/24 13:03	10/01/24 12:10	7440-24-6	
Zinc	17800	ug/L	1000	10	09/30/24 13:03	10/01/24 12:05	7440-66-6	
2320B Alkalinity								
Analytical Method: SM 2320B Pace Analytical Services - Minneapolis								
Alkalinity, Total as CaCO3	58.4	mg/L	5.0	1		10/03/24 12:08		
Alkalinity,Bicarbonate (CaCO3)	58.4	mg/L	5.0	1		10/03/24 12:08		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	1		10/03/24 12:08		
2540C Total Dissolved Solids								
Analytical Method: SM 2540C Pace Analytical Services - Minneapolis								
Total Dissolved Solids	295000	mg/L	250	1		09/27/24 18:38		MW,PP
4500H+ pH, Electrometric								
Analytical Method: SM 4500-H+B Pace Analytical Services - Minneapolis								
pH at 25 Degrees C	5.5	Std. Units	0.10	1		10/08/24 12:45		H6
Resistivity								
Analytical Method: EPA 120.1 Resistivity Pace Analytical Services - Ormond Beach								
Resistivity	1.9	ohms-cm	0.50	1		10/02/24 14:00		N2
SM2510 Specific Conductance								
Analytical Method: SM 2510 Pace Analytical Services - Minneapolis								
Specific Conductance	209000	umhos/cm	5.0	1		10/01/24 14:36		
Specific Gravity								
Analytical Method: ASTM D5057 Pace Analytical Services - Minneapolis								
Specific Gravity	1.22			1		10/09/24 22:12		N2
300.0 IC Anions								
Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis								
Chloride	167000	mg/L	6000	5000		10/07/24 10:02	16887-00-6	
Sulfate	256	mg/L	120	100		10/05/24 03:08	14808-79-8	
353.2 Nitrate + Nitrite								
Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis								
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	1		10/06/24 11:45		

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QUALITY CONTROL DATA

Project: Phoenix Operating, LLC
 Pace Project No.: 10709475

QC Batch: 970670 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010D Water
 Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10709475001

METHOD BLANK: 5072402 Matrix: Water
 Associated Lab Samples: 10709475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	ug/L	ND	10.0	10/01/24 11:18	
Calcium	ug/L	ND	500	10/01/24 11:18	
Chromium	ug/L	ND	10.0	10/01/24 11:18	
Iron	ug/L	ND	50.0	10/01/24 11:18	
Magnesium	ug/L	ND	500	10/01/24 11:18	
Potassium	ug/L	ND	2500	10/01/24 11:18	
Sodium	ug/L	ND	1000	10/01/24 11:18	
Strontium	ug/L	ND	5.0	10/01/24 11:18	
Zinc	ug/L	ND	20.0	10/01/24 11:18	

LABORATORY CONTROL SAMPLE: 5072403

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	993	99	80-120	
Calcium	ug/L	20000	19600	98	80-120	
Chromium	ug/L	1000	977	98	80-120	
Iron	ug/L	20000	20000	100	80-120	
Magnesium	ug/L	20000	19800	99	80-120	
Potassium	ug/L	20000	19900	100	80-120	
Sodium	ug/L	20000	20300	102	80-120	
Strontium	ug/L	1000	1020	102	80-120	
Zinc	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5072404 5072405

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		10708927001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Barium	ug/L	18.0	1000	1000	1000	990	98	97	75-125	1	20	
Calcium	ug/L	85.3 mg/L	20000	20000	101000	97900	81	63	75-125	3	20	P6
Chromium	ug/L	ND	1000	1000	964	955	96	95	75-125	1	20	
Iron	ug/L	3480	20000	20000	22900	22600	97	96	75-125	1	20	
Magnesium	ug/L	125 mg/L	20000	20000	141000	136000	80	55	75-125	4	20	P6
Potassium	ug/L	14.1 mg/L	20000	20000	34600	33800	103	99	75-125	2	20	
Sodium	ug/L	56.1 mg/L	20000	20000	73300	70900	86	74	75-125	3	20	M1
Strontium	ug/L	559	1000	1000	1540	1510	98	96	75-125	2	20	
Zinc	ug/L	ND	1000	1000	1000	995	100	99	75-125	1	20	

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QUALITY CONTROL DATA

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 971542 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10709475001

METHOD BLANK: 5076911 Matrix: Water
Associated Lab Samples: 10709475001

Table with 6 columns: Parameter, Units, Blank Result, Reporting Limit, Analyzed, Qualifiers. Rows include Alkalinity, Total as CaCO3, Alkalinity, Bicarbonate (CaCO3), and Alkalinity, Carbonate (CaCO3).

LABORATORY CONTROL SAMPLE & LCSD: 5076912 5076913. Table with 11 columns: Parameter, Units, Spike Conc., LCS Result, LCSD Result, LCS % Rec, LCSD % Rec, % Rec Limits, RPD, Max RPD, Qualifiers.

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5076914 5076915. Table with 13 columns: Parameter, Units, Result, Spike Conc., MSD Spike Conc., MS Result, MSD Result, % Rec, % Rec, % Rec Limits, RPD, Max RPD, Qual.

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5076916 5076917. Table with 13 columns: Parameter, Units, Result, Spike Conc., MSD Spike Conc., MS Result, MSD Result, % Rec, % Rec, % Rec Limits, RPD, Max RPD, Qual.

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QUALITY CONTROL DATA

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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 970573 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10709475001

METHOD BLANK: 5072111 Matrix: Water
Associated Lab Samples: 10709475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	09/27/24 18:37	

LABORATORY CONTROL SAMPLE: 5072112

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	992	99	80-120	

SAMPLE DUPLICATE: 5072113

Parameter	Units	10709141012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	206	196	5	10	

SAMPLE DUPLICATE: 5072114

Parameter	Units	10709194003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	157	151	4	10	

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QUALITY CONTROL DATA

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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 972286 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10709475001

LABORATORY CONTROL SAMPLE: 5081033

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	5	5.0	100	98-102	H6

SAMPLE DUPLICATE: 5081034

Parameter	Units	10709552003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	4.3	4.2	1	3	H6

SAMPLE DUPLICATE: 5081035

Parameter	Units	10710487004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	3	H6

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QUALITY CONTROL DATA

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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 971086 Analysis Method: SM 2510
QC Batch Method: SM 2510 Analysis Description: SM2510 Specific Conductance
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10709475001

METHOD BLANK: 5074750 Matrix: Water
Associated Lab Samples: 10709475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	ND	5.0	10/01/24 13:16	

LABORATORY CONTROL SAMPLE: 5074751

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	933	93	90-110	

SAMPLE DUPLICATE: 5074752

Parameter	Units	10708260023 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	882	817	8	20	

SAMPLE DUPLICATE: 5074753

Parameter	Units	10708260024 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	1170	1170	1	20	

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QUALITY CONTROL DATA

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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 972576 Analysis Method: ASTM D5057
QC Batch Method: ASTM D5057 Analysis Description: Spec.Gravity/ASTM D5057
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10709475001

SAMPLE DUPLICATE: 5082528

Parameter	Units	10709912001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Gravity		1.22	1.22	0	20	N2

SAMPLE DUPLICATE: 5082529

Parameter	Units	10709914001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Gravity		1.22	1.22	0	20	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

MONTANA BOARD OF OIL &
GAS CONSERVATION - BILLINGS

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 971880 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10709475001

METHOD BLANK: 5078609 Matrix: Water
Associated Lab Samples: 10709475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.2	10/04/24 23:06	
Sulfate	mg/L	ND	1.2	10/04/24 23:06	

LABORATORY CONTROL SAMPLE: 5078610

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.2	100	90-110	
Sulfate	mg/L	50	50.4	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5078611 5078612

Parameter	Units	50383317002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	42600 ug/L	50	50	79.6	84.4	74	84	80-120	6	20	M1
Sulfate	mg/L	28200 ug/L	50	50	68.7	72.9	81	89	80-120	6	20	

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QUALITY CONTROL DATA

MONTANA BOARD OF OIL &
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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 971645 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10709475001

METHOD BLANK: 5077223 Matrix: Water
Associated Lab Samples: 10709475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	10/06/24 11:11	

LABORATORY CONTROL SAMPLE: 5077224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	1	1.1	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5077225 5077226

Parameter	Units	10709141012 Result	MS		MSD		% Rec		% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Nitrogen, NO2 plus NO3	mg/L	ND	1	1	1.1	1.1	108	106	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5077227 5077228

Parameter	Units	10709145001 Result	MS		MSD		% Rec		% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Nitrogen, NO2 plus NO3	mg/L	ND	1	1	1.1	1.1	107	106	90-110	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

DEFINITIONS

- DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
- ND - Not Detected at or above adjusted reporting limit.
- TNTC - Too Numerous To Count
- J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
- MDL - Adjusted Method Detection Limit.
- PQL - Practical Quantitation Limit.
- RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
- S - Surrogate
- 1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
- Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
- LCS(D) - Laboratory Control Sample (Duplicate)
- MS(D) - Matrix Spike (Duplicate)
- DUP - Sample Duplicate
- RPD - Relative Percent Difference
- NC - Not Calculable.
- SG - Silica Gel - Clean-Up
- U - Indicates the compound was analyzed for, but not detected.
- N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
- Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
- Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
- TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- H6 Analysis initiated outside of the 15 minute EPA required holding time.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MW Due to matrix interference, achieving a constant weight is not possible.
- N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
- P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
- PP The mass of dried residue obtained did not meet the test method requirements based on volume used.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10709475001	Milloy 10-3-24 #2H Well Pad	EPA 3010A	970670	EPA 6010D	971065
10709475001	Milloy 10-3-24 #2H Well Pad	SM 2320B	971542		
10709475001	Milloy 10-3-24 #2H Well Pad	SM 2540C	970573		
10709475001	Milloy 10-3-24 #2H Well Pad	SM 4500-H+B	972286		
10709475001	Milloy 10-3-24 #2H Well Pad	EPA 120.1 Resistivity	1045614		
10709475001	Milloy 10-3-24 #2H Well Pad	SM 2510	971086		
10709475001	Milloy 10-3-24 #2H Well Pad	ASTM D5057	972576		
10709475001	Milloy 10-3-24 #2H Well Pad	EPA 300.0	971880		
10709475001	Milloy 10-3-24 #2H Well Pad	EPA 353.2	971645		

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ASTRO-CHEM LAB, INC. 4102 2nd Ave. W. P. O. Box 972 Williston, ND 58801 701-672-7355 www.astrochemlab.com		Client: Phoenix Operating, LLC. Project: Milloy 10-3-24 #2H Well Pad Project Manager: Mark Johnson		CHAIN of CUSTODY				Page 1 of 1	
		Telephone No.		Fax No.		Method of Shipment FEDEX OVERNIGHT			
		Container Preservative **		1 U U 2		Special Detection Limit/Reporting			
		ACL "Oilfield Water"		**Preservative Types: (1) nitric acid (2) sulfuric acid (3) hydrochloric acid (4) sodium hydroxide (5) zinc acetate (6) methanol (7) sodium bisulfite (8) sodium thiosulfate (9) hexane (A) ascorbic acid (B) ascorbic acid (C) ammonium hydroxide (D) TSP (U) unpreserved (O) Other:					
Sample ID.	Lab Sample No. ↓ (3615)	Matrix			Analysis Requested				
		No. of Containers	Soil Water Air Other	Sampling Date	Sampling Time	Ca, Mg, Na, Fe, Cr, Ba, K, Sr, Zn Chloride, Sulfate, pH, Conductivity, Resistivity, Total Dissolved Solids Specific Gravity, Alkalinity (Carbonate & Bicarbonate) Nitrate-Nitrite	Turn Around Time (working days)		
Milloy 10-3-24 #2H Well Pad (Treater)	4	X	9/24/24	10:30 am	X	X	X		
WO# : 10709475  10709475									
Sample Received Intact: Yes No		Temperature received:		Ice No Ice		REMARKS:			
Relinquished by: D.S. (Vestibute)		Date: 9/24/24		Received by (Signature): Brenda Benth		Lab Work No.			
Relinquished by: Brenda Benth		Date: 9/25/24 2:00 pm		Received by: [Signature]					
Relinquished by:		Date:		Received by laboratory:		Date:			

astrochem@midconnetwork.com
www.astrochemlab.com

Methods for Analysis (ACL OIL WATER GUIDELINES)

- Alkalinity (2320B)
 - Alkalinity, Bicarbonate (CaCO₃)
 - Alkalinity, Carbonate (CaCO₃)
 - Alkalinity, Total as CaCO₃
- Nitrate + Nitrite (353.2)
 - Nitrogen, NO₂ plus NO₃
- pH, Electrometric (4500H+B)
- 8 Metals-Barium, Chromium, Iron, Zinc, Calcium, Magnesium, Sodium, Potassium (6010D MET ICP)
- Chloride & Sulfate (300.0 IC Anions)
- Resistivity (D1125-14)
- Specific Conductance (SM2510)
- Specific Gravity (ASTM D5057)
- Strontium (6020B MET ICPMS)
- Total Dissolved Solids (2540C)

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ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

VII. Water Analysis - Surface Waters

CLIENT NAME: Astro-Chem Lab, Inc PROJECT #: _____

WO#: 10709475

COURIER: Client Commercial FedEx Pace
 Speedee UPS USPS

PM: AR4 Due Date: 10/10/24
 CLIENT: 11 Astro Che

TRACKING NUMBER: 7988 1920 3305 See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: YES NO Seals Intact: YES NO Biological Tissue Frozen: YES NO N/A
 Packing Material: Bubble Bags Bubble Wrap None Other Temp Blank: YES NO Type of Ice: Blue Dry Wet
 Thermometer: T1 (0461) T2 (0436) T3 (0459) T4 (0402) T5 (0178) T6 (0235) Melted None
 T7 (0042) T8 (0775) T9 (0727) 01339252 (1710)

Did Samples Originate in West Virginia: YES NO Were All Container Temps taken: YES NO N/A
 Correction Factor: -0.1 Cooler Temp Read w/Temp Blank: 0.9 °C Average Corrected Temp (no Temp Blank Only): _____ °C
 Cooler Temp Corrected w/Temp Blank: 0.8 °C
 NOTE: Temp should be above freezing to 6°C. See Exceptions Form ENV-FRM-MIN4-0142 1 Container

USDA Regulated Soil: N/A - Water Sample/Other (describe): _____ Initials & Date of Person Examining Contents: JMW 9/26/24
 Did Samples originate from one of the following states (check maps) AL, AR, AZ, CA, FL, GA, ID, IA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: YES NO Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): YES NO
 NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

LOCATION (check one): <input type="checkbox"/> DULUTH <input checked="" type="checkbox"/> MINNEAPOLIS <input type="checkbox"/> VIRGINIA	YES	NO	N/A	COMMENT(S)								
Chain of Custody Present and Filled Out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.								
Chain of Custody Relinquished?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.								
Sampler Name and/or Signature on COC?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.								
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. If Fecal: <input type="checkbox"/> <8 hrs <input type="checkbox"/> >8 hr, <24 hr <input type="checkbox"/> No								
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. <input type="checkbox"/> BOD / cBOD <input type="checkbox"/> Fecal coliform <input type="checkbox"/> Hex Chrom <input type="checkbox"/> HPC <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Ortho Phos <input type="checkbox"/> Total coliform/E. coli <input type="checkbox"/> Other: _____								
Rush Turn Around Time Requested?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.								
Sufficient Sample Volume?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.								
Correct Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.								
- Pace Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
Containers Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.								
Field Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. Is sediment visible in the dissolved container: <input type="checkbox"/> YES <input type="checkbox"/> NO								
Is sufficient information available to reconcile the samples to the COC? NOTE: If ID/Date/Time don't match fill out section 11. Matrix: <input type="checkbox"/> Oil <input type="checkbox"/> Soil <input checked="" type="checkbox"/> Water <input type="checkbox"/> Other	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11. If NO, write ID/Date/Time of container below: <u>NO label on Sample id Only match with Lab Sample number</u> <input type="checkbox"/> See Exceptions form ENV-FRM-MIN4-0142								
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12. Sample #: <u>001</u> <input checked="" type="checkbox"/> HNO ₃ <input checked="" type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH <input type="checkbox"/> Zinc Acetate Positive for Residual Chlorine: <input type="checkbox"/> YES <input type="checkbox"/> NO pH Paper Lot # <table border="1"> <tr> <th>Residual Chlorine</th> <th>0-6 Roll</th> <th>0-6 Strip</th> <th>0-14 Strip</th> </tr> <tr> <td></td> <td><u>205229</u></td> <td></td> <td></td> </tr> </table> <input type="checkbox"/> See Exceptions form ENV-FRM-MIN4-0142	Residual Chlorine	0-6 Roll	0-6 Strip	0-14 Strip		<u>205229</u>		
Residual Chlorine	0-6 Roll	0-6 Strip	0-14 Strip									
	<u>205229</u>											
Headspace in Methyl Mercury Container?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.								
Extra labels present on soil VOA or WIDRO containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.								
Headspace in VOA Vials (greater than 6mm)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> See Exceptions form ENV-FRM-MIN4-0140								
Trip Blanks Present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15.								
Trip Blank Custody Seals Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Pace Trip Blank Lot # (if purchased): _____								

CLIENT NOTIFICATION / RESOLUTION FIELD DATA REQUIRED: YES NO
 Person Contacted: _____ Date & Time: _____
 Comments / Resolution: _____

Project Manager Review: Anchea Richardson Date: 9/27/24

NOTE: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).
 Labeled By: JMW Line: 2

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Internal Transfer Chain of Custody



Rush Multiplier X
 Samples Pre-Logged into eCOC

State of Origin: ND
Cert. Needed: Yes No

Pace

Workorder: 10709475 Workorder Name: Phoenix Operating, LLC Subcontract To: Pace Analytical Ormond Beach
Owner Received Date: 9/26/2024 Results Requested By: 10/10/2024 Requested Analysis

Andrea Richardson
Pace Analytical Minnesota
1700 Elm Street
Minneapolis, MN 55414
Phone (218)341-6080

Pace Analytical Ormond Beach
8 East Tower Circle
Ormond Beach, FL 32174
Phone (386)672-5668

WO#: 35908965



35908965

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers				Resistivity	LAB USE ONLY
						BP2U11					
1	Milloy 10-3-24 #2H Well Pad	PS	9/21/2024 10:30	10709475001	Water	1				X	
2											
3											
4											
5											

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	Made J/Pace	9/21/24 10:30	PS Jae	10/10/24 10:16	
2					
3					

Cooler Temperature on Receipt °C Custody Seal Y or N Received on Ice Y or N Samples Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

VIII. Water Analysis - Source Waters

Sample Condition Upon Receipt Form

WO#: 35908965

PM: JMW1
CLIENT: PAGMIN

Due Date: 10/11/24

Pace

Project #

Project Manager:

Client:

Date and Initials of person:

Examining contents: BP

Verifying pH:

Initials: KAMI

Thermometer Used: T414

Date: 10/01/24

Time: 1143

State of Origin _____

For WV projects all containers verified to $\leq 6^{\circ}\text{C}$

Cooler #1 Temp. $^{\circ}\text{C}$ 15 (Visual) +0.1 (Correction Factor) 1.6 (Actual)

Cooler #2 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Cooler #3 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Cooler #4 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Cooler #5 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Cooler #6 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Recheck for OOT $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Samples on ice, cooling process has begun

Samples on ice, cooling process has begun

Samples on ice, cooling process has begun

Samples on ice, cooling process has begun

Samples on ice, cooling process has begun

Samples on ice, cooling process has begun

Time: _____ Initials: _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other: _____

Shipping Method: Standard Overnight First Overnight Priority Overnight Ground International Priority Other: _____

Billing: Recipient Sender Third Party Credit Card Unknown Other: _____

Tracking # 6476 5646 1809

Custody Seal Present: Yes No Seal properly placed and intact: Yes No

Ice: Wet Blue Dry None Melted

Packing Material: Bubble Wrap Bubble Bags None Other: _____

Samples shorted to lab: Yes No (If yes, complete the following)

Shorted Date: _____

Shorted Time: _____

Bottle Quantity / Type: _____

Chain of Custody:	Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sampler Name: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
	Relinquished To Pace: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sampling Date(s): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sampling Time(s): <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Samples Arrived within Hold Time	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Comments
Rush Turnaround Requested on COC	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Comments
Sufficient Volume	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Comments
Correct Containers Used	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Comments
Containers Intact	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Comments
Sample Labels Match COC (Sample ID, Date/Time of Collection)	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Comments
All containers needing acid / base preservation have been checked	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
All containers needing preservation are found to be in compliance with EPA recommendation:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Exceptions Vials Microbiology O&G PFAS	
Headspace in Volatile Vials? (>6mm)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Trip Blank Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

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Preservative: _____ Date: _____
Lot / Trace: _____ Time: _____
Amount added (mL): _____ Initials: _____

Comments / Resolutions (use back for additional comments):

NO client label on container, matched by J. Akbel

Labeled by: BP

Reviewed by: EPAS

Delivered by: EPAS

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Surface Owners within AOR

Richard L. Hansen and E. Diane Hansen
5532 Road 1009
Bainville, MT 59212

Christopher & Brandy Hansen
P.O. Box 14
Bainville, MT 59212

Lease Mineral Owners within AOR

Ricky Duane Hansen
a/k/a Rick Duane Hansen
14 Burlington Avenue
Billings, MT 59101

Daniel K. Lambert
P.O. Box 107
Bainville, MT 59212

Robert Rudolph
5360 Road 1009
Bainville, MT 59212

Darin Fisher
45 South 1840 West
Saint George, UT 84770

Phoenix Capital Group Holdings, LLC
18575 Jamboree Road, Suite 830
Irvine, CA 92612

Jerry Axel Hansen
P.O. Box 377
Willow, AK 99688

Lynette Stump
12518 West Lagrange
Boise, ID 83709

Joseph Delbert Hansen
1232 Avenue C Apartment #6
Billings, MT 59102

Darlas R. Rogers
P.O. Box 133
Bainville, MT 59213

Lyle G. Lambert
P.O. Box 66
Bainville, MT 59212

Michael Paul Hansen
522 18th Street West
Billings, MT 59102

Liana L. Peters
P.O. Box 194
Froid, MT 59225

Unleased Mineral Owners within AOR

Darin Fisher
45 South 1840 West
Saint George, UT 84770

Lynette Stump
12518 West Lagrange
Boise, ID 83709

BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION FOR PHOENIX OPERATING LLC FOR THE HEARING OF ITS REQUEST FOR A UIC PERMIT FOR THE RONIN 1 SWD WELL, 485' FSL 2416' FEL, SECTION 35, T29N, R57E, P.M.M. ROOSEVELT COUNTY, MONTANA, FOR THE PURPOSE OF WATER INJECTION

AFFIDAVIT OF NOTIFICATION

Date: October 28, 2024


State of Utah
County of Uintah

Amy Doebele, being first duly sworn, deposes and says:

That Notice of advising of Phoenix Operating LLC' application for UIC permit in the captioned matter, in the form attached as "Exhibit A", was mailed to each current operator, surface owner and lease owner within the area of review at the addresses shown in the exhibit attached to the Notice, by mailing a true copy thereof this 29 day of Oct., 2024, postage prepaid, First Class USPS Mail. This affidavit is given as evidence of compliance with A.R.M. 36.22.1410.


Amy Doebele
Authorized Agent

Subscribed and sworn before me on this 29 day of Oct., 2024.


Notary Public of the State of Utah
My Commission Expires: May 19, 2026



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October 29, 2024

To: Mineral lease owner within ¼ mile of the proposed saltwater disposal well.

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

RE: Proposed Saltwater Disposal Well

Location of proposed Disposal Well & Facility: Ronin 1 SWD

SW 1/4 SE 1/4, Section 35, Township 29N, Range 57W. P.M.M.
Roosevelt County, Montana

This letter is to advise you that Phoenix Operating LLC (Phoenix) plans to drill and complete the subject well into a Class II saltwater disposal well. Water will be injected into the Dakota group for the purpose of disposal operations.

In accordance with the rules and regulations of the Montana Board of Oil & Gas Conservation (MBOG), Phoenix is required to give notice that it has made an application to perform this work to each mineral lease owner within a one-quarter mile radius of the injection site. The MBOGC will conduct a hearing regarding this application. For the hearing date, please contact the MBOGC by phone at (406) 656-0040, or visit their website at <https://dnrc.mt.gov/BOGC/>. Your comments or objections regarding this application may be directed to the MBOGC at that time.

Written comments or objections may be submitted prior to the hearing to the following address:

Montana Board of Oil & Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

Please direct any and all of your communication regarding this proposed project, including more information about the upcoming hearing, to Mr. John Gizicki with the MBOGC at (406) 656-0040 or to Mark Johnson with Phoenix Operating LLC at (303) 548-1953.

Sincerely,

Amy Doebele
Authorized Agent for Phoenix Operating LLC



October 29, 2024

To: Christopher & Brandy Hansen
P.O. Box 14
Bainville, MT 59212

RE: Proposed Saltwater Disposal Well

RECEIVED

OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

Location of proposed Disposal Well & Facility: Ronin 1 SWD

SW 1/4 SE 1/4, Section 35, Township 29N, Range 57W. P.M.M.
Roosevelt County, Montana

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Sincerely,

Amy Doebele
Authorized Agent for Phoenix Operating LLC



October 29, 2024

To: Richard & Diane Hansen
5532 Road 1009
Bainville, MT 59212

RE: Proposed Saltwater Disposal Well

RECEIVED

OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

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SW 1/4 SE 1/4, Section 35, Township 29N, Range 57W. P.M.M.
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Sincerely,

Amy Doebele
Authorized Agent for Phoenix Operating LLC



October 29, 2024

Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

Attn: Mr. John Gizicki
UIC Program Manager

RE: Application for UIC Permit and Authorization to Drill a Class II Injection Well
Location of proposed Disposal Well & Facility: Ronin 1 SWD
SW 1/4 SE 1/4, Section 35, Township 29N, Range 57W. P.M.M.
Roosevelt County, Montana

Dear Mr. Gizicki,

Phoenix Operating LLC (Phoenix) respectfully requests approval of an Underground Injection Control (UIC) permit for the referenced location and as described in the attached application. Phoenix has provided notice to the appropriate parties within ¼ mile area of review of the proposed well location and requests that the application be placed on the docket for the MBOGC hearing scheduled December 5, 2024.

If you have any questions concerning the enclosed application, please contact myself at (435) 789-1017 or to Mark Johnson with Phoenix Operating LLC at (303) 548-1953.

Sincerely,

Amy Doebele
Authorized Agent for Phoenix Operating LLC
UELS, LLC

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OCT 30 2024

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

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OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

Phoenix Operating - Ronin 1 SWD
BEFORE THE BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA

In the Matter of the application of

Phoenix Operating LLC

for a Class II Injection well permit.

NOTICE OF INTENTION TO APPLY FOR A
CLASS II INJECTION WELL PERMIT

1. Name and address of Applicant:

Phoenix Operating LLC
4643 S. Ulster Street
Suite 1510
Denver, CO 80237

This public legal notice is
scheduled to be published
in the Helena Independent
Record on November 2,
2024. Upon publication,
receipt of the proof of
publication will be provided
to MBOGC.

2. Legal Description including County and Approximate
Footages of Surface Location of Proposed Oil and Gas Well:
(and projected bottom-hole location, if a directional or horizontal
well)

Ronin 1 SWD
Surface Hole: 485' FSL 2416' FEL
SWSE Section 35, Township 29 North, Range 57 East
Roosevelt County, MT

3. Source of fluids to be injected

Produced water from Three Forks (Bakken) wells

4. Zone or formation into which injection will occur, including
depth

Dakota from 5,049 -5,537'

5. An aquifer exemption will be requested as part of the
application since the proposed injection zone contains water
with less than 10,000 ppm total dissolved solids.

Pursuant to Rules 36.22.1409, Administrative Rules of Montana,
the Montana Board of Oil and Gas Conservation will hold a
public meeting upon the application of Phoenix Operating LLC
for a Class II underground injection permit for the well or project
set forth above. Said hearing will be held at the Montana Board
of Oil & gas Hearing Room at 2535 St. John's Ave. Billings,
Montana, beginning at 9:00 am on Thursday, December 5,
2024.

November 2, 2024 ##### MNAXLP



November 1, 2024

Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

Attn: Mr. John Gizicki
UIC Program Manager

RE: Application for UIC Permit and Authorization to Drill a Class II Injection Well
Location of proposed Disposal Well & Facility: Scadden 1 SWD
NE ¼ NW ¼, Section 21, Township 30N, Range 59E. P.M.M.
Roosevelt County, Montana

Dear Mr. Gizicki,

Phoenix Operating LLC (Phoenix) respectfully submits this application for an Underground Injection Control (UIC) permit for the referenced location and as described in the attached application. A check in the amount of \$150.00 is included in this application submittal, Check #27947.

Phoenix has provided notice to the appropriate parties within ¼ mile area of review of the proposed well location and requests that the application be placed on the docket for the MBOGC hearing scheduled December 5, 2024. A public legal notice will be published in the Helena Independent Record and the Northern Plains Independent upon confirmation of the scheduled docket date, and evidence and proof of publication will be supplemented to MBOGC upon receipt.

If you have any questions concerning the enclosed application, please contact myself at (435) 789-1017 or to Mark Johnson with Phoenix Operating LLC at (303) 548-1953.

Sincerely,

Mark Johnson
EVP Land/Regulatory/HSE
Phoenix Operating LLC

Amy Doebele
Authorized Agent for Phoenix Operating LLC
UELS, LLC

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NOV 01 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

211-2024



October 30, 2024

Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

Attn: Mr. John Gizicki
UIC Program Manager

RE: Application for UIC Permit and Authorization to Drill a Class II Injection Well
Location of proposed Disposal Well & Facility: Scadden 1 SWD
NE ¼ NW ¼, Section 21, Township 30N, Range 59W. P.M.M.
Roosevelt County, Montana

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Sincerely,

Amy Doebele
Authorized Agent for Phoenix Operating LLC
UELS, LLC

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OCT 30 2024

FORM NO. 22 R 10/09 SUBMIT IN QUADRUPPLICATE TO: ARM 36.22.307
ARM 36.22.601

MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE, BILLINGS, MONTANA 59102

Lease Name: SCADDEN

Lease Type (Private/State/Federal): PRIVATE

Application for Permit To:

Drill Deepen Re-enter
Oil Gas Other SWD

Well Number: 1 SWD

Operator: PHOENIX OPERATING LLC
Address: 4643 S ULSTER STREET, SUITE 1510
City: DENVER State: CO Zip: 80237
Telephone Number: 855-868-4244

Field Name or Wildcat: WILDCAT - ROOSEVELT COUNTY
Unit Name (if applicable):

Surface Location of Well (quarter-quarter and footage measurements):
450' FNL, 2036' FEL, NENW, 21, T30N, R59E

Objective Formation(s): INYAN KARA

Proposed Total Depth and Bottom-hole Location(s) if directional or horizontal well:
5811' MD, TVD

Township, Range, and Section: T30N, R59E, SECTION 21
County: ROOSEVELT
Elevation (indicate GL or KB): 2460 GL

Size and description of drilling/spacing unit and applicable order, if any:	Formation at total depth:	Anticipated Spud Date:
	INYAN KARA	3/1/2025


MONTANA BOARD OF OIL & GAS CONSERVATION - BILLINGS

Hole Size	Casing Size	Weight / Foot	Grade (API)	Depth	Sacks of Cement	Type of Cement
13.5	9.625	36	J-55	2300	884	BJ CEM TYPE III
8.75	7	23	L-80	5332	462	BJ CEM TYPE III
6	4.5	11.6	L-80	5811	0	UNCEMENTED

Describe Proposed Operations:
Describe or attach labeled diagram of blowout preventer equipment. Indicate if air drilled or describe mud program.

SEE ATTACHMENTS FOR DETAILS
PHOENIX OPERATING LLC REQUESTS A VARIANCE TO RUN OPEN HOLE LOGS ON THE SUBJECT WELL.

BOARD USE ONLY

Approved (date) _____	Permit Fee _____	The undersigned hereby certifies that the information contained on this application is true and correct: Signed (Agent)  Title <u>AUTHORIZED AGENT</u> Date <u>10/28/2024</u> Telephone Number <u>435-789-1017</u>
By _____	Check Number _____	
Title _____	Permit Expires _____	
	Permit Number _____	
THIS PERMIT IS SUBJECT TO THE CONDITIONS OF APPROVAL STATED ON THE BACK		
API Number: 25 - _____		

Samples Required: NONE _____ ALL _____ FROM _____ feet to _____ feet
Core chips to address below, full cores to USGS, Core Laboratory, Arvada, CO. Required samples must be washed, dried and delivered prepaid to:
Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

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OCT 30 2024

SUPPLEMENTAL INFORMATION

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

Note: Additional information or attachments may be required by Rule or by special request.

1. Attach a survey plat certified by a registered surveyor. The survey plat must show the location of the well with reference to the nearest lines of an established public survey.
2. Attach an 8 1/2 x 11" photocopy of that portion of a topographic map showing the well location, the access route from county or other established roads, residences, and water wells within a 1/2 mile radius of the well.
3. Attach a sketch of the well site showing the dimensions and orientation of the site, the size and location of pits, topsoil stockpile, and the estimated cut/fill at the corners and centerstake. (Note: the diagram need not be done by an engineer or surveyor). Attach a sketch of a top view and two side views of the reserve pit(s), if utilized. The reserve pit sketch must show the length, width, depth, cut and fill, amount of freeboard, area of topsoil stockpile, and the height and width of berms.
4. Describe the type and amount of material or liner, if any, to be used to seal the reserve pit. If a synthetic liner is used, indicate the liner thickness (mils), bursting strength, tensile strength, tear strength, puncture resistance, hydrostatic resistance, or attach the manufacturer's specifications.
5. Describe the proposed plan for the treatment and/or the disposal of reserve pit fluids and solids after the well is drilled. If the operator intends to dispose of or treat the reserve pit contents off-site, specify the location and the method of waste treatment and disposal. (Note: The operator must comply with all applicable federal, state, county, and local laws and regulations with regard to the handling, transportation, treatment, and disposal of solid wastes.)
6. Does construction of the access road or location, or some other aspect of the drilling operation require additional federal, state, or local permits or authorizations? If yes, indicate the type of permit or authorization required:
 - No additional permits needed
 - 310 Permit (apply through county conservation district)
 - Air quality permit (apply through Montana Department of Environmental Quality)
 - Water discharge permit (apply through Montana Department of Environmental Quality)
 - Water use permit (apply through Montana Department of Natural Resources and Conservation)
 - Solid waste disposal permit (apply through Montana Department of Environmental Quality)
 - State lands drilling authorization (apply through Montana Department of Natural Resources and Conservation)
 - Federal drilling permit (specify agency)
 - Other federal, state, county, or local permit or authorization: (specify type) _____

NOTICES:

1. Date and time of spudding must be reported to the Board verbally or in writing within 72 hours after the commencement of drilling operations.
2. The operator must give notice of drilling operations to the surface owner as required by Section 82-10-503, MCA, before the commencement of any surface activity.

BOARD USE ONLY

CONDITIONS OF APPROVAL

The operator must comply with the following condition(s) of approval:

WARNING: Failure to comply with conditions of approval may void this permit.

UELS, LLC

MONTANA BOARD MONTANA BOARD OF OIL & GAS CON 0023785

10/28/2024

27947

REFERENCE	INVOICE NUMBER	INV DATE	INVOICE AMOUNT	ADJUSTMENT	DISCOUNT	WRITE OFF	NET AMOUNT PAID
0027779	PHOENIX-SCADDEN1.SWD	10/28/2024	\$150.00	\$150.00	\$0.00	\$0.00	\$150.00
			\$150.00	\$150.00	\$0.00	\$0.00	\$150.00

THIS CHECK IS VOID WITHOUT A BLUE & RED BACKGROUND AND A WATERMARK - HOLD UP TO THE LIGHT TO VERIFY



UELS, LLC
85 South 200 East
Vernal, UT 84078

ZIONS FIRST NATIONAL BANK
VERNAL OFFICE 3 WEST MAIN
VERNAL, UT 84078

31-5/1240

27947

DATE	10/28/2024
AMOUNT	\$150.00

PAY ONLY **150.00** CENTS

PAY One Hundred Fifty Dollars and 00 Cents

TO THE ORDER OF

MONTANA BOARD OF OIL & GAS CON
2535 ST. JOHNS AVENUE
BILLINGS MT 59102

CHECK IS PRINTED ON SECURITY PAPER WHICH INCLUDES A MICROPRINT BORDER & FLUORESCENT FIBERS

⑈027947⑈ ⑆124000054⑆002246551⑈

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OCT 30 2024

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

**State of Montana
Board of Oil & Gas**

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**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

**Docket No: _____
Underground Injection Control Application**

**Scadden 1 SWD
Section 21, T30N, R59E**

**Phoenix Operating LLC
December 5, 2024**

Phoenix Operating LLC
SCADDEN PAD
SHL: 450' FNL & 2036' FEL
NENW, SECTION 21, T30N, R59E P.M.M.
ROOSEVELT COUNTY, MONTANA

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MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

The following is submitted in support of our application to permit the drilling and completion of the Scadden 1 SWD well for the purposes of water injection into the Dakota Group and related rocks within the proposed Wildcat field, Roosevelt County, as required by rule 36.22.1403 of the Rules and Regulations of the Montana Board of Oil & Gas Conservation.

UIC PERMIT APPLICATION

1(a) Location:

The Scadden 1 SWD well has been proposed for the drilling and completion of a water injection well within the Wildcat field in Roosevelt County, Montana as described below. Attachment I depicts the surface hole location and a quarter ¼-mile radius representing the area of review (AOR) for this vertical well.

1(b) Well Location Description:

The Scadden 1 SWD well is a proposed disposal well located in Section 21, T30N, R59E, P.M.M. in Roosevelt County Montana. The surface ownership of this well site is located on Fee/Fee and is owned by Dale & Jodi & Dean Nelson.

1(c) Maps of Wells/Area of Review:

There are currently no oil and gas wells within the ¼-mile AOR. Phoenix is currently drilling three (3) horizontal oil wells at this location with another three (3) to be drilled in the 3rd quarter of 2025

1(d) Location of all Pipelines:

The Scadden 1 SWD surface facilities will be constructed on the same pad as the injection well. Injection fluids will come from the oil wells both being currently drilled and proposed for this location. The Scadden 1 SWD may be tied into Phoenix's pending saltwater gathering system in the future.

1(e) Area Producing Formations, Fresh Water Aquifers and Water Well information:

The Three Forks (Bakken) formation is not currently being produced within the quarter mile AOR of the proposed Scadden 1 SWD. Operator anticipates the Three Forks (Bakken) to produce between 10,200' and 10,287' when currently drilling wells on the Scadden pad are POL.

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Fresh water well data was obtained from the Montanan Department of Natural Resources and Conservation, Water Resources, Division. There is one water well within the ¼ -mile AOR of the proposed injector. The Picard Eldon (ID #42395) which has a depth of 121'.

<u>Location</u>	<u>S-T-R</u>	<u>Well ID</u>	<u>Well Name</u>	<u>Depth</u>
SENW	21-30N-59E	42395	Picard Eldon	121'

Any potential USWDs are protected from the proposed injection zone by surface casing set at 2,300' and cemented to the surface. A production tubing string and an injection packer will result in further isolation of fresh USWDs from injected fluids.

1(f) Name and Geological Description of Injection Zone:

Injection Zone:

The Inyan Kara within the Lower Cretaceous Dakota Group is roughly 517' thick based on the Ronning 23-21 (25-085-21510). The Inyan Kara formation consists of alternating fluvial deltaic sandstones, siltstones and shales. There are several porosity intervals between 5,332' and 5,849' TVD with sandstone packages ranging in thickness from 4' to 40'.

Upper Confining Zone:

The Mowry formation within the lower Cretaceous Dakota Group is made up of shales and bentonitic claystone of offshore marine origin. The Mowry is expected between 4,896' TVD and 5,331' TVD and is approximately 435' thick and overlies the Inyan Kara. The Mowry confines the upper boundary for the Inyan Kara.

Lower Confining Zone:

The Jurassic Swift formation lies conformably below the Inyan Kara. The Swift is made up of shallow marine shale and siltstone and is approximately 482' thick in this area. The Swift is expected at a depth of 5,841' TVD through 6,323' TVD. The Swift confines the lower boundary for the Inyan Kara.

All TVD depths are based on a 15' KB rig.

The offset wells did not have porosity logs for the shallow section but clean GR and low resistivity equates to porosity in the Inyan Kara Formation.

1(g) Open Hole Logs:

The Scadden 1 SWD will be a new drill SWD. The logging program will consist of a CBL-VDL-GR-CCL log ran from TD to Surface, along with Triple Combo + MWD-GR log ran from the base of surface casing to surface. Any logs and test data run on the Scadden 1 SWD will be supplied to the MBOGC.

OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**1(h) Description of Wellbore Construction:**

Attached to this document is the MBOGC's Form 2 and wellbore configuration, requesting drilling and completing of the subject well as an SWD. Appendix V shows the proposed wellbore design. Perforations will be selected after logs are run. Section 6 of the Drilling Plan describes the plan for drilling and completion for the subject well. The Dakota Group perforations will be acidized with 15% HCl and rock salt or polymer diverter at the wellhead during stimulation.

1(i) Description of Injection Fluid:

The Scadden 1 SWD will be used to inject produced water from Phoenix operated wells producing from the Three Forks (Bakken) formation drilled on the well pad. See Appendix VIII, which represents a water analysis from a Bakken well in the area that will be injected at the Scadden 1 SWD. Due to limited Three Forks (Bakken) produced water availability within the area of review, Phoenix Operating LLC proposes to utilize produced water collected from a nearby producing well as the source water for injection. Samples were collected from the Milloy 10-3-24 #2H well, located NENE, Section 15, T155N, R104W, Williams County, North Dakota approximately 7 miles South.

Average and maximum daily volumes of injected water are expected to be 17,500 bbls per day and 20,000 bbls per day respectively, depending on production from wells, storage capabilities of the facility, and final maximum allowable injection pressure (MAIP).

Surface injection pressures will not be allowed to exceed a maximum based on the EPA accepted fracture grading of 0.733 psi/ft and the following equation:

$$\text{MAIP} = (\text{FG}) * (\text{D}_{\text{Top}}) - (\text{SG}) * (\text{NPG}) * (\text{D}_{\text{Top}})$$

- MAIP = Maximum allowable injection pressure
- FG = Assumed fracture gradient in Confining Zone – Shale = 0.8 psi/ft
- SG = Specific Gravity of injection fluid = 1.21
- NPG = Normal pressure gradient = 0.433 psi/ft
- D_{Top} = Depth to top of the injection zone = 5,332'

$$\text{MAIP} = (0.8 \text{ psi/ft} * 5,332 \text{ ft}) - (1.21 * 0.433 \text{ psi/ft} * 5,332 \text{ ft}) = 1,472 \text{ psi}$$

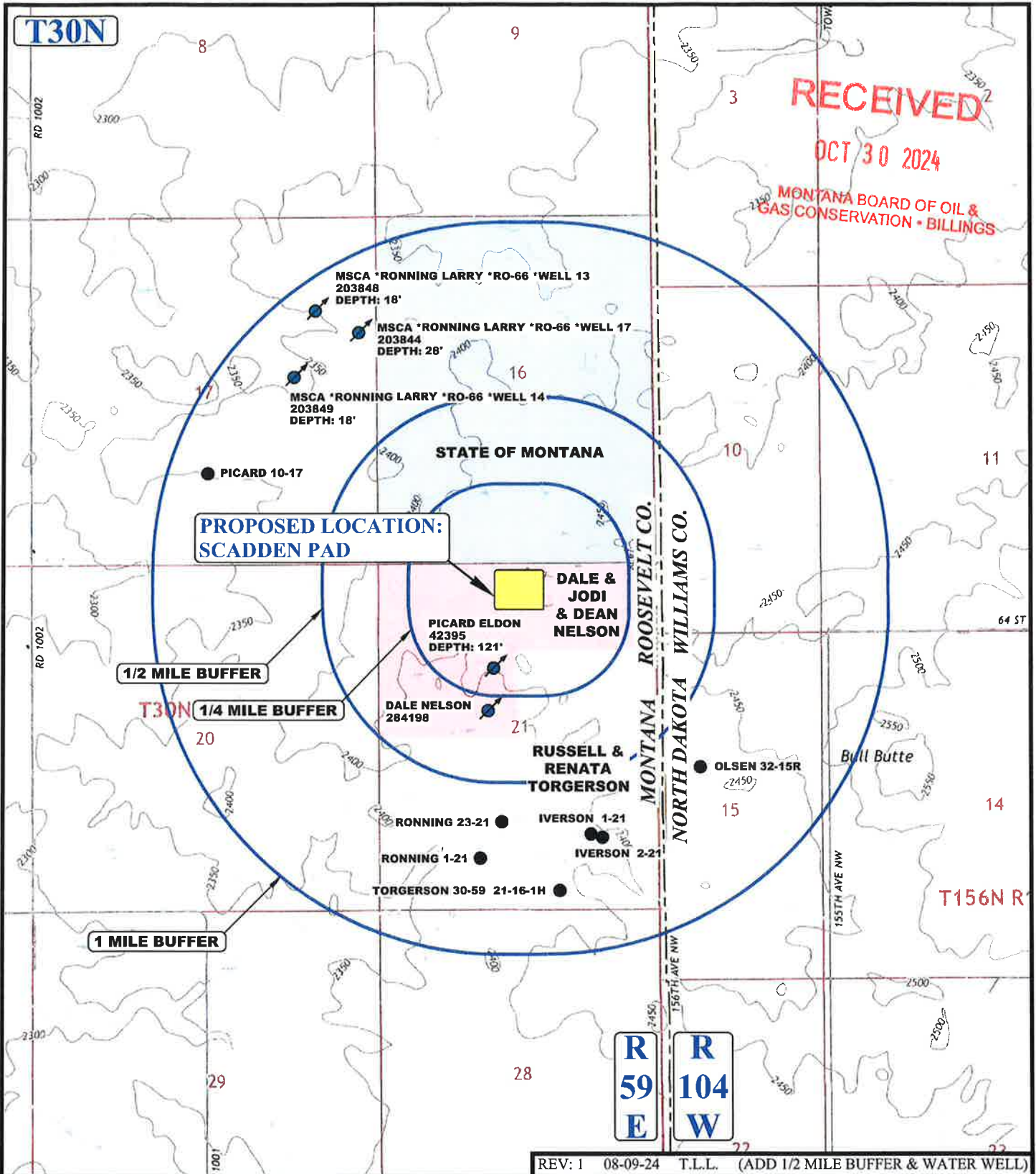
1(j) Names of Owner of Record:

The surface owners and mineral owners are within the AOR are presented in Appendix IX. Phoenix Operating LLC has notified the current operators, surface owners and lease owners in accordance with 36.22.1410, notification requirements for an underground injection permit. Appendix X is an affidavit attesting to the fact that notices have been mailed.

List of Appendices/Attachments:

- I** ¼ -Mile Area of Review Map
- II** Plat of SWD Location
- III** Representative Log
- IV** Sundry Notices
- V** Proposed Drilling & Completion Procedure
- VI** Proposed Wellbore Schematic/Directional Plan
- VII** SWD Layout Diagram
- VIII** Water Analysis – Source Waters
- IX** List of Surface Owners/Mineral Owners in ¼ -Mile AOR
- X** Affidavit of Notification to Landowners
- XI** Example of Landowner Notifications of Application for Injection
- XII** Notice of Intention to Apply for a Class II Well
- XIII** Affidavits of Publication

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REV: 1 08-09-24 T.L.L. (ADD 1/2 MILE BUFFER & WATER WELL)

LEGEND:

- OIL/GAS WELLS
- ⊕ WATER WELLS



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017



PHOENIX OPERATING LLC

SCADDEN PAD
 NE 1/4 NW 1/4, SECTION 21, T30N, R59E, P.M.M.
 ROOSEVELT COUNTY, MONTANA

SURVEYED BY	C.B., N.G.	05-10-24	SCALE
DRAWN BY	T.L.L.	06-12-24	1 : 24,000
WELL PROXIMITY MAP			TOPO C

LEGEND:

- = PROPOSED WELLHEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground.)

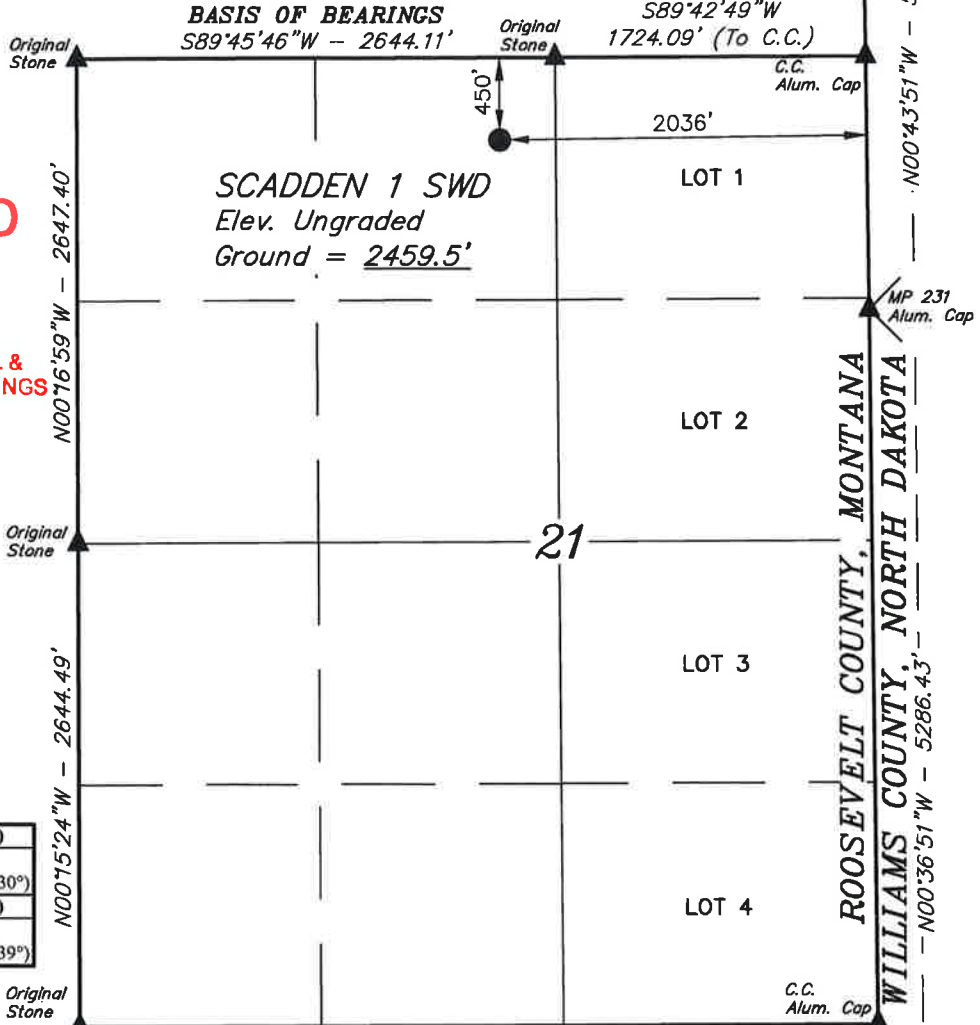
NOTE:
Distances referenced on plat to section lines are perpendicular.

T30N, R59E, P.M.M.

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OCT 30 2024

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

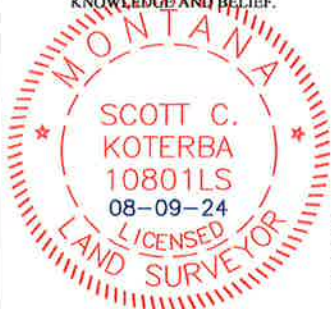


NAD 83 (SURFACE HOLE LOCATION)	
LATITUDE = 48°20'40.69" (48.344637°)	
LONGITUDE = -104°03'17.03" (-104.054730°)	
NAD 27 (SURFACE HOLE LOCATION)	
LATITUDE = 48°20'40.61" (48.344613°)	
LONGITUDE = -104°03'15.26" (-104.054239°)	

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

S89°44'49"W - 4400.76' (To C.C.)
S89°44'49"W - 4400.33' (To True)



Scott C. Koterba

SCOTT C. KOTERBA
REGISTERED LAND SURVEYOR
REGISTRATION NO. 10801LS
STATE OF MONTANA



R 59 E
R 104 W

REV: 1 08-09-24 T.L.L. (UPDATE WELL NAME)

BASIS OF BEARINGS
BASIS OF BEARINGS IS A G.P.S. OBSERVATION



UELS, LLC
Corporate Office
85 South 200 East
Vernal, UT 84078
(435) 789-1017



PHOENIX OPERATING LLC

SCADDEN 1 SWD
NE 1/4 NW 1/4, SECTION 21, T30N, R59E, P.M.M.
ROOSEVELT COUNTY, MONTANA

SURVEYED BY	C.B., N.G.	05-10-24	SCALE
DRAWN BY	A.T.	05-29-24	1" = 1000'

WELL LOCATION PLAT

III. Scadden 1 SWD Representative Log

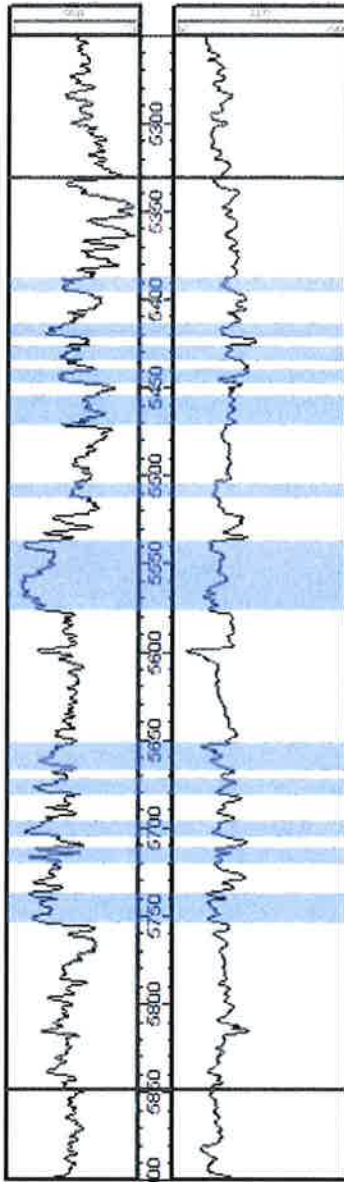
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24-21
ROHNING
TIPPERARY O&G CORP
25085215100000
T33N R59E S21

INKR



SWIFT

III. Scadden 1 SWD - Representative Log

DST NO. 2
600 cc Oil
1500 cc WTR
6.43 ccfg
950 psi

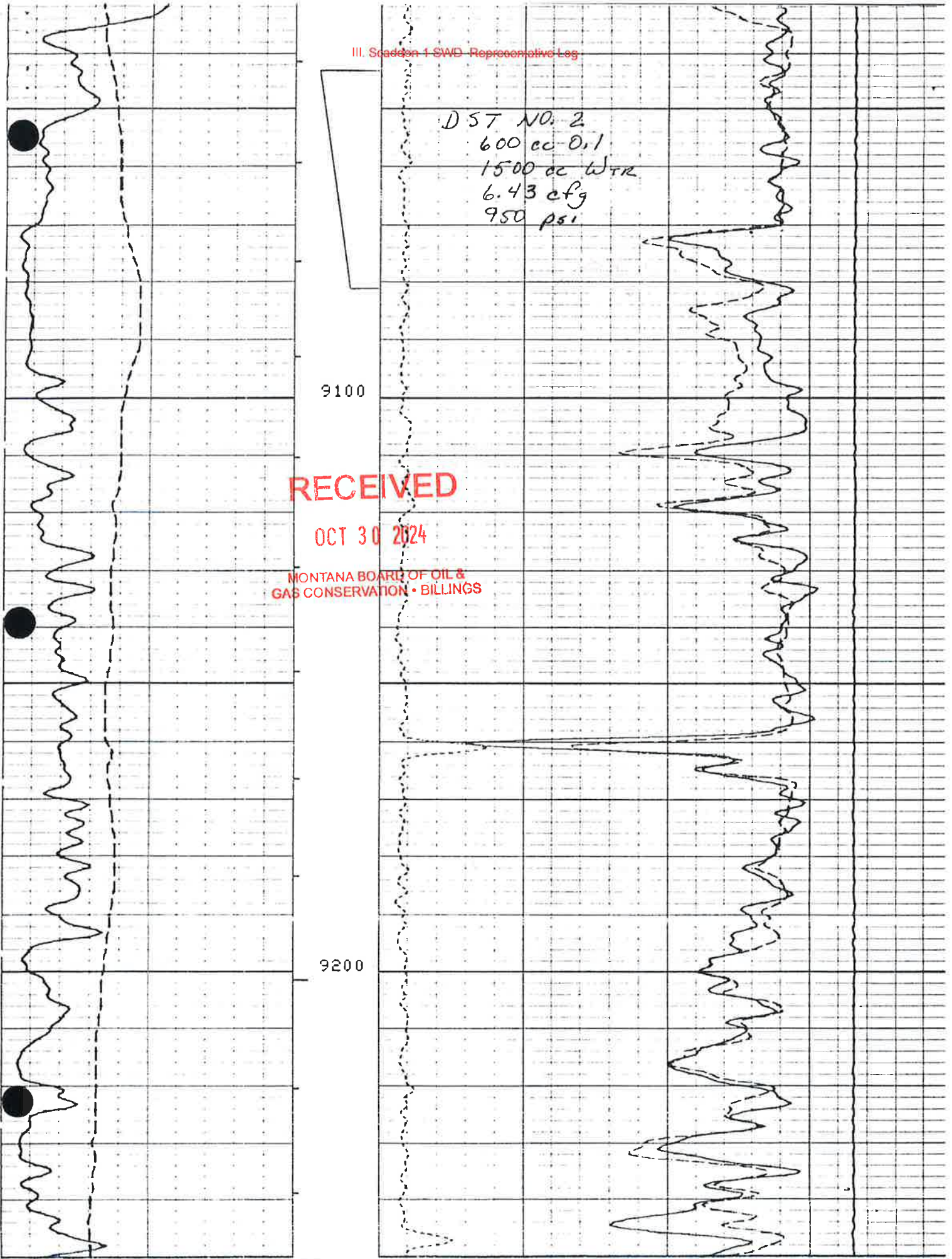
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III. Scadon 1 5VOT Representative Log

DST NO. 2

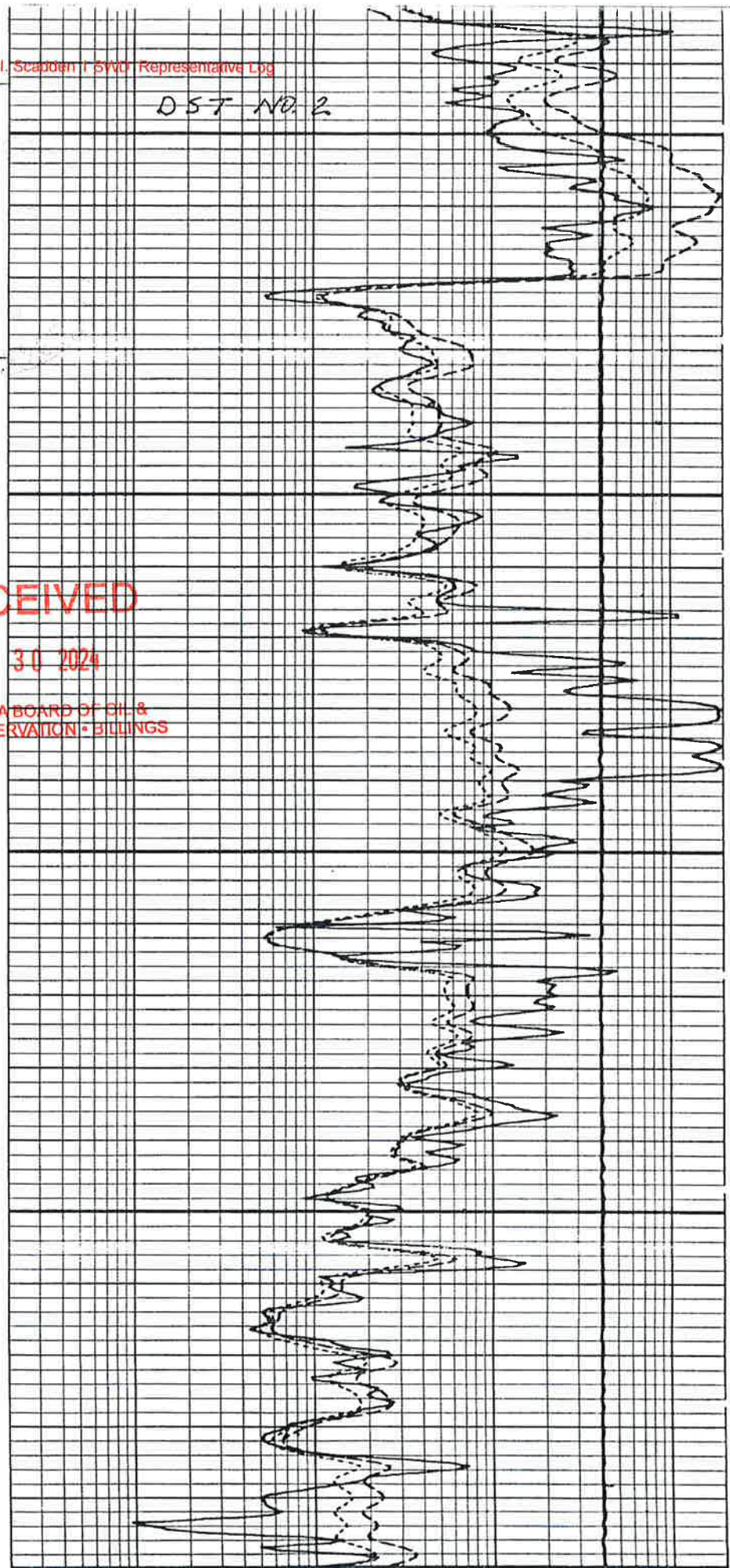
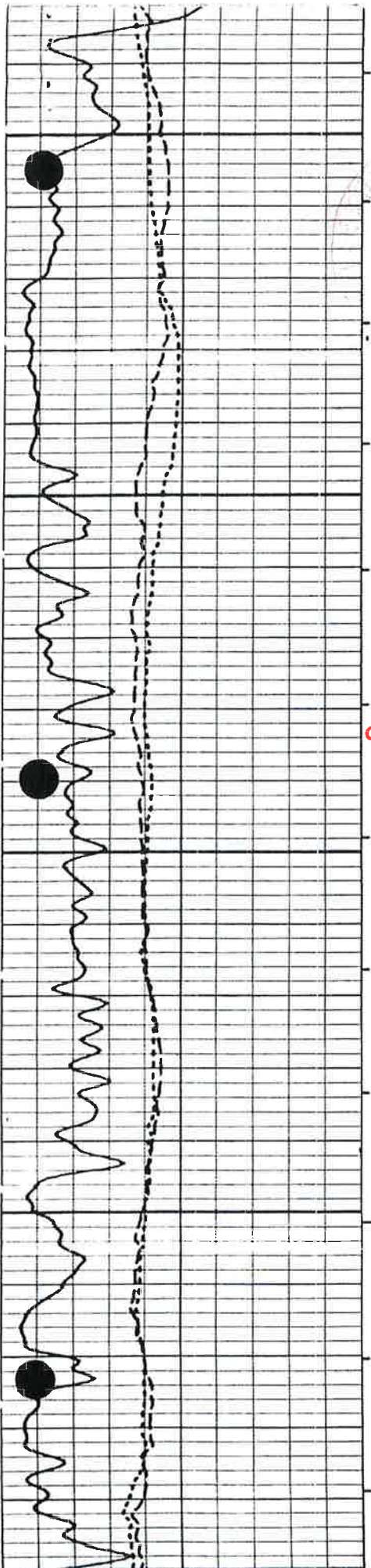
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III. Scatter (SWD) Representative Log

DST NO. 2

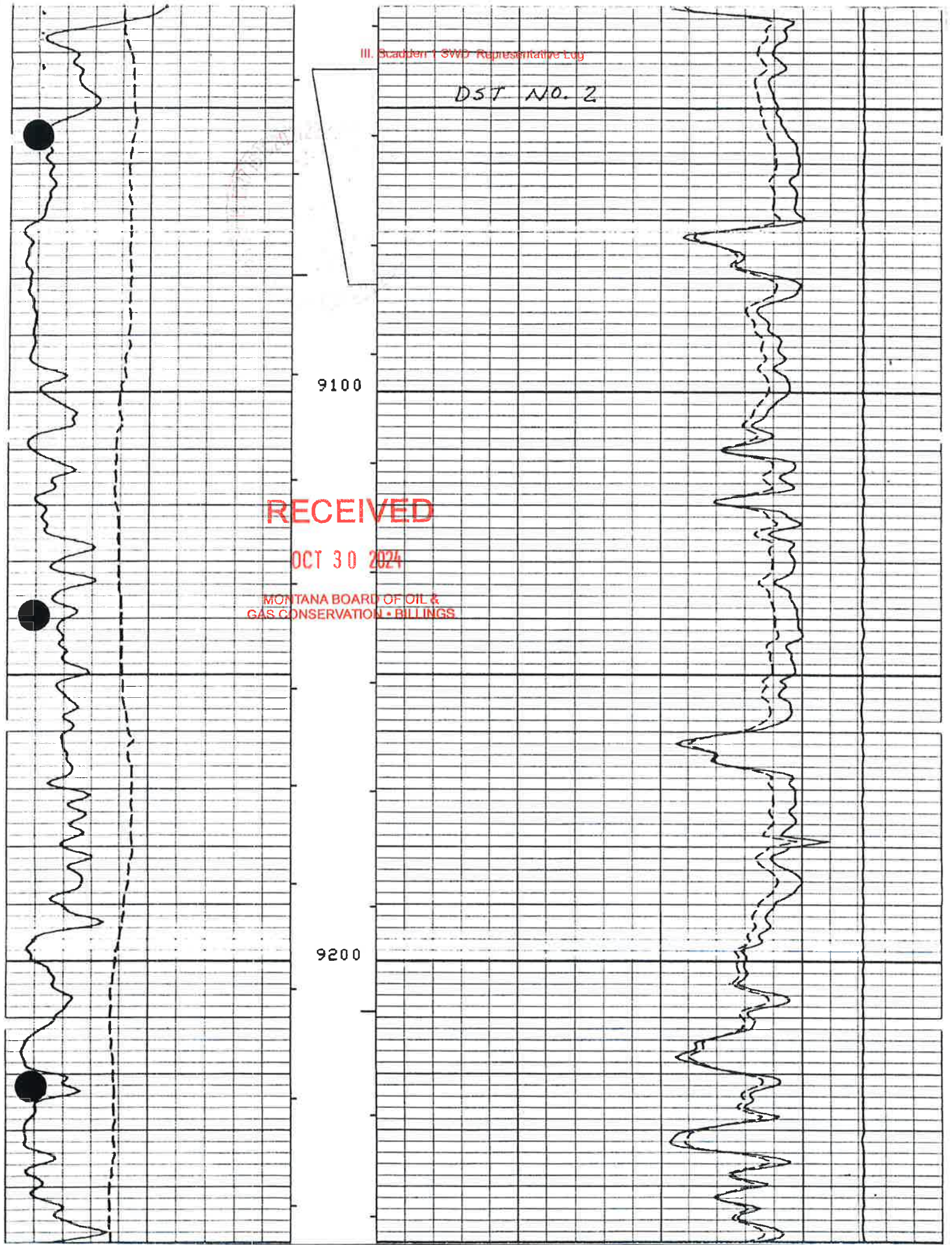
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FORM NO. 2-R 10/09

ARM 36.22.307, 601, 605,
1003, 1004, 1011, 1013,
1103, 1222, 1240, 1301,
1306, 1309, and 1417

OCT 30 2024

MONTANA BOARD OF OIL &
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Submit In Quadruplicate To:
MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE
BILLINGS, MONTANA 59102

SUNDRY NOTICES AND REPORT OF WELLS

Operator PHOENIX OPERATING LLC		Lease Name: SCADDEN
Address 4643 S ULSTER STREET, SUITE 1510		Type (Private/State/Federal/Tribal/Allotted): PRIVATE
City DENVER	State CO	Zip Code 80237
Telephone 855-868-4244	Fax	
Location of well (1/4-1/4 section and footage measurements): 450' FNL 2038' FEL NENW SECTION 24, T30N, R59E		Well Number: 1 SWD
		Unit Agreement Name:
		Field Name or Wildcat: WILDCAT, ROOSEVELT
		Township, Range, and Section: 24, 59N, 30E
API Number: 25	Well Type (oil, gas, injection, other): INJECTION	County: ROOSEVELT
State _____	County _____	Well _____

Indicate below with an X the nature of this notice, report, or other data:

Notice of Intention to Change Plans	<input type="checkbox"/>	Subsequent Report of Mechanical Integrity Test	<input type="checkbox"/>
Notice of Intention to Run Mechanical Integrity Test	<input type="checkbox"/>	Subsequent Report of Stimulation or Treatment	<input type="checkbox"/>
Notice of Intention to Stimulate or to Chemically Treat	<input type="checkbox"/>	Subsequent Report of Perforation or Cementing	<input type="checkbox"/>
Notice of Intention to Perforate or to Cement	<input type="checkbox"/>	Subsequent Report of Well Abandonment	<input type="checkbox"/>
Notice of Intention to Abandon Well	<input type="checkbox"/>	Subsequent Report of Pulled or Altered Casing	<input type="checkbox"/>
Notice of Intention to Pull or Alter Casing	<input type="checkbox"/>	Subsequent Report of Drilling Waste Disposal	<input type="checkbox"/>
Notice of Intention to Change Well Status	<input type="checkbox"/>	Subsequent Report of Production Waste Disposal	<input type="checkbox"/>
Supplemental Well History	<input type="checkbox"/>	Subsequent Report of Change in Well Status	<input type="checkbox"/>
Other (specify) INTENT TO DRILL & COMPLETE	<input checked="" type="checkbox"/>	Subsequent Report of Gas Analysis (ARM 36.22.1222)	<input type="checkbox"/>
CLASS II INJECTION WELL	<input type="checkbox"/>		<input type="checkbox"/>

Describe Proposed or Completed Operations:
Describe planned or completed work in detail. Attach maps, well-bore configuration diagrams, analyses, or other information as necessary. Indicate the intended starting date for proposed operations or the completion date for completed operations.

PHOENIX OPERATING LLC RESPECTFULLY REQUEST APPROVAL TO DRILL & COMPLETE A DISPOSAL WELL AT THE REFERENCED LOCATION FOR INJECTION OF CLASS II E&P WASTES. NOTICES HAS BEEN PROVIDED TO PARTIES WITHIN 1/4 MILE AREA OF REVIEW OF THE PROPOSED LOCATION. AN APPLICATION FOR HEARING ON THE MONTANA BOARD OF OIL & GAS CONSERVATION DOCKET. HAS BEEN REQUESTED FOR DECEMBER 5, 2024.

PHOENIX OPERATING LLC REQUESTS A VARIANCE TO NOT RUN OPEN HOLE LOGS ON THE SUBJECT WELL.

BOARD USE ONLY

Approved _____
Date _____

Name Title

The undersigned hereby certifies that the information contained on this application is true and correct:

10-28-2024
Date

Amy Doebele
Signed (Agent)

AMY DOEBELE, AUTHORIZED AGENT
Print Name and Title

Telephone: 435-789-1017

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**Phoenix Operating LLC
Drilling Plan**

Scadden 1 SWD

**NENW Sec 21, T30N-R59E
450' FNL 2036' FEL
Roosevelt County, MT**

1. Estimated Formation Tops

Formation	MD	TVD	Comments
Pierre Shale	2165'	2165'	9-5/8" surface casing set at 2,300 & cemented to surface.
Greenhorn	4578'	4578'	
Mowry	4896'	4896'	
Inyan Kara	5332'	5332'	
Swift	5841'	5841'	
Planned TD	5811'	5811'	

Formation elevations are based on a finished pad elevation of 2,444' and a KB elevation of 2,459' (15' rig substructure height).

2. BOP and Pressure Containment Data

Depth Intervals	BOP Equipment
0' to 2,300'	13-1/2" surface hole. No pressure control equipment utilized.
2,300' to TD	11", 3,000 psi Hydraulic Double Ram Type BOP's 11", 3,000 psi Annular BOP
Drilling spool to accommodate choke and kill lines.	
Ancillary equipment and choke manifold to be rated to 3,000 psi. All BOP tests will be performed in accordance with the requirements of onshore order No 2.	
BOP handwheels may be under and or within the substructure of the rig if the drilling used is set up to operate most efficiently in this manner.	

Auxiliary equipment:

- a) Upper and lower Kelly cock will be installed while drilling.
- b) Inside BOP or stab-in valve will be available on rig floor.
- c) Safety valve(s) and subs to fit all string connections will be on floor during drilling operations.
- d) Mud monitoring will be visually observed.

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3. Casing & Cement Programs

a) The proposed casing program is as follows:

	Hole Size	Casing Depth		Casing Details					Cmt
		From	To	OD	Weight	Grade	Cplg	Condition	Cmt Top
Conductor	24"	0'	80'	20"	106.5#	J-55		New	Surface
Surface	13-1/2"	0'	2300'	9-5/8"	36#	J-55	LTC	New	Surface
Intermediate	8-3/4"	0'	5332'	7"	23#	L-80	LTC	New	2,300'
Production	6"	5282'	5811'	4.5"	11.6#	L-80	BTC	New	Un-Cemented

b) Cementing Program:

9-5/8" Surface Casing	Cement Details
TOC at Surface – 55% excess.	Lead: 613 sx (226 bbls) of 12.5 lb/gall, 2.08 ft ³ /sx BJ CEM S100 Type III with 0.13 lb/sx Celloflake, 2.0 lbs/sx CaCl ₂ , 2.0 lbs/sx Sodium Metasilicate, 5% Gypsum and 0.3% Anti-foaming agent (FP-25).
TOC at 1,800' -55% excess.	Tail: 271 sx (71bbls) of 14.2 lb/gall, 1.99 ft ³ /sx BJ CEM S100 Type III with 0.13 lb/sx IntegraSeal, 2.0 lbs/sx Sodium Metasilicate, 5% Gypsum (BWOB) and 0.3% FP-25 (defoamer, BWOB).

7" Intermediate Casing	Cement Details
TOC at 2,300' (BSC) – 65% excess.	Lead: 295 sx (114.5 bbls) of 12.0 lb/gall, 1.46 ft ³ /sx BJ CEM I100 Type III with 0.25 lb/sx IntegraSeal, 5 lb/sx BA-95 (bonding agent) 3% KCL (BWOW), 0.1% R-7C (retarder), 0.4%FL-66 (fluid loss), 0.30% R-3 (retarder) and 0.1% IntegraGuard GW-86 (scavenger). Additives by BWOB.
TOC at 4,150' – 40% excess.	Tail: 167 sx (42.8 bbls) of 14.0 lb/fall, 1.44 ft ³ /sx BJ CEM I100, 20% Fly Ash, 80% Class G, 0.13 lb/sx IntegraSeal Cellophane, 1.0 lb/sx IntegraSeal Pheno, 0.1% IntegraGuard GW-86 (scavenger), and 0.4% FI-66 (fluid loss). Additives by BWOB

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4. Drilling Fluids Program

From:		To:	
Spud (0')		2,300' 13 1/2" Surface Hole, Fresh Water, Gel & Lime Sweeps	
MW, ppg:	8.5 to 9.0	PV, cp:	0 to 25
YP, lb/100 ft ²	0 to 8	pH:	7.0 to 8.5
Funnel Vis, sec:	28 to 50	LGS:	LT 6%

Note: If shallow surface sand or gravel is encountered, rig will mud-up with gel (increase viscosity).

From:		To:	
2,300'		5,332' 8-3/4" Production section – Oil Based Mud	
MW, ppg:	9.2 to 10.0	Elec Stability, v:	400 to 600
YP, lb/100 ft ² :	4 to 12	PV, cp:	12 to 25
Funnel Vis, sec:	40 to 50	HTHP WL, cc:	10 to 20
Oil Water Ratio:	70/30 to 80/20	Chlorides, ppm:	30,000 to 50,000
LGS:	LT 6%	NaCl, mg/l:	250,000 to 300,000

Cuttings Plan: Closed loop system will be utilized during surface and production drilling operations. All drill cuttings will be disposed of at 13 Mile Landfill, Williston, ND.

5. Evaluation Program

Cores:	No Coring is planned.
Testing:	No DST's are planned.
Samples:	No cuttings are planned to be collected on this well.
Surveys:	MWD will be utilized from surface to TD. Surveys will be taken on a 30' survey interval after entering the Mowry.

The logging program will be as follows:

Depth Interval	Depth Interval
Base of surface casing to TD	Triple Combo + MWD-GR
7", Production casing (TD to surface)	CBL-VDL-GR-CCL

Directional Planning / Anit-Collision:

The Scadden 1 SWD well is planned as a vertical well with a 50 ft target radius from the wellhead. anti-collision avoidance modeling will be completed before spud. Anti-Collision reports will be based on known offset wells to Phoenix Operating LLC within the vicinity of the planned wellbore path.

6. Drilling/Completion Program:

1. Move in drilling rig (Notify State Inspector prior to spud).
2. Pick up BHA and drill the Surface interval as follows:
 - a. 13-1/2" Bit and MWD/Directional Tools.
 - b. Fresh water will be utilized.
 - c. Drill approx. 150' into the Pierre Shale formation.
3. At TD circulate to condition hole.
4. TOO H and lay down BHA
5. Run 9-5/8" J55-36# LTC casing.

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- a. Centralizers on bottom 3 joints minimum.
- b. Float shoe and float collar to be utilized.
6. Pump surface casing cement job per cementing program.
 - a. Spacer, Lead Slurry, Tail Slurry, Displace with fresh water.
7. Pressure test surface casing (Required pressure & time).
8. Install Wellhead and BOP.
 - a. Nipple up 3M BOP stack and test per BLM Onshore Order No. 2.
 - b. Install wear-bushing.
9. Pick up BHA and drill the Production interval as follows:
 - a. 8 3/4" bit and MWD/Directional tools.
 - b. *MWD gamma every 30' after entering the Mowry.*
 - c. Oil-based drilling fluid will be utilized.
 - d. Drill to the top of the Inyan Kara formation ~5332' TVD.
10. At TD circulate to condition hole and make a wiper trip to the surface shoe.
11. TOO H and lay down BHA.
12. Run 7" L80 – 23# LTC casing.
 - a. Casing will be centralized.
 - b. Float shoe and Float collar to be utilized.
13. Pump Intermediate cement per cementing program.
 - a. Spacer, Lead Slurry, Tail Slurry, Displace with salt water.
14. Wait on cement prior to drilling out 7" shoe and drilling 6" open hole section.
15. Run CBL on 7" casing, from PBT D to surface. CBL must be reviewed prior to drilling out the shoe.
 - a. If unable to get to the bottom with CBL tools a clean out will be required.
 - b. *CBL on the Intermediate casing must be completed prior to starting drilling of the open hole and submitted to the State for review prior to running the 4 1/2" liner.*
16. Pressure test production casing to 1500 psi.
17. Once CBL has been reviewed, pick up BHA and drill the Open-Hole interval as follows:
 - a. 6" bit and MWD/Directional tools.
 - b. *MWD gamma every 30' after entering the Mowry formation.*
 - c. *A geologist must be onsite to catch samples every 30' once in the Inyan Kara formation.*
 - d. Brine drilling fluid will be utilized.
 - e. Drill to a maximum of ~5,811' TVD. Approximately 30' above the top of the Swift formation.
 - f. *If it is suspected that the Swift is encountered while drilling, there will be an all stop for evaluation.*
18. At TD circulate to condition hole.
19. TOO H and lay down BHA.
20. Run 4 1/2" P-110-11.6# BTC pre-perforated liner.

DESCRIPTION	OD	ID
5" ID x 8' Polished Bore Receptacle (PBR)	5.750"	5.000"
4 1/2" x 7" OptiPak Liner Hanger Packer BTC pin	5.875"	3.920"
1 Jts 4 1/2" 11 6# IPC Blank BTC Liner	5.000"	4.000"
1 Jts 4 1/2" 11 6# Blank BTC Liner	5.000"	4.000"
~ 7 - 8 Jts 4 1/2" 11 6# Pre-Perf BTC Liner	5.000"	4.000"
Guide Shoe Joint w/ Aluminum Nose and Side Ports	5.000"	750"

- a. 4 1/2" nickel plated, Liner Hanger and packer will be set within 100' of the open hole in 7" casing with good cement bond.
- b. Run 4 1/2" Blank to below 7" shoe.
21. TOO H and lay down drill pipe and liner tools.
22. Secure well and release drilling rig.
23. Install 7 1/16" – 5M tubing head and master valve.
24. MIRU service rig. Install and test BOPs.

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25. Recover Dakota water sample from formation.
 - a. Check pressure and attempt to establish flow from the Dakota.
 - b. If flow is established, flow fluid to surface and recover a fluid sample.
 - c. If unable to recover fluid, RIH with 2 7/8" tubing and packer. Set packer above the liner top and attempt to swab the well to recover formation fluids to surface.
 - d. If unable to recover fluid samples at surface, RIH with wireline and recover a downhole sample.
 - e. Take samples to lab for full water analysis.
26. Run 3 1/2" L80-9.3# BTC Internally Plastic-Coated tubing.
 - a. Seal assembly ran and stung into PBR at liner top.
 - b. Land tubing hanger in wellhead with tubing in 45k compression.
27. Perform MIT on tubing annulus, seal assembly and packer.
 - a. *Notify State inspector prior to performing MIT. Inspector must witness MIT.*
 - b. *MIT to 1000 psi for 15 minutes, or as directed by the State inspector.*
28. RDMO rig and service equipment.
29. Install 4 1/16" – 5M master valve.
30. Install flowlines from facility to wellhead.
 - a. *Flowlines must be pressure tested to 100 psi above the permitted MASP from the Injection Pump to the Wellhead prior to injection.*
 - b. *Pressure test results must be reported to the NDIC via sundry.*
31. Begin injection test.
32. Acidize well as needed to improve injection.
 - a. Acidize with 15% HCl and rock-salt or polymer diverter.

7. Abnormal Pressure and H2S Gas

No abnormal pressure, temperatures or other hazards are anticipated. H2S gas is not expected to be encountered in this wellbore. However, precautions will be taken to monitor for H2S while drilling the vertical section.

8. Hydraulic Fracturing Stimulation – N/A

No hydraulic fracturing will be attempted on this wellbore.

9. Contact Information:

Phoenix Operating LLC
4643 South Ulster Street, Suite 1510
Denver, CO 80237
Attn: Mark Johnson
Email mjohnson@phxoperating.com
303.548.1953

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PHOENIX OPERATING COMPANY

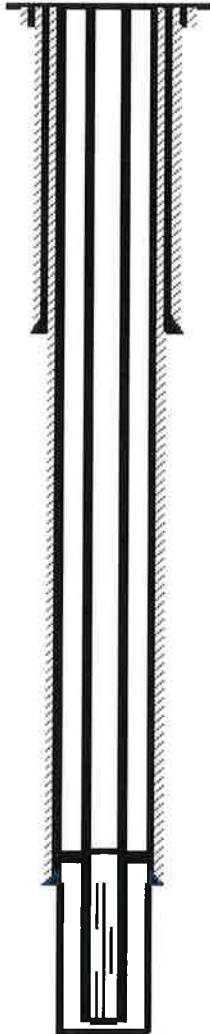
Scadden 1 SWD

Inyan Kara Injection
Roosevelt County, Montana

SHL: 450ft FNL & 2036ft FEL of Sec 21-30N-59E

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Proposed Vertical Wellbore



Wellhead Description

Cameron 7 1/16" - 5M

Casing Description

String	Size	Weight	Grade	Cplg	Top	Bottom	Hole Size	Cement Top
Conductor	20"	106.5	J-55		0'	80'	24	Surface
Surface	9 5/8"	36#	J-55	LTC	0'	2100'	13 1/2"	Surface
Intermediate	7"	23#	L-80	LTC	0'	5332'	8 3/4"	2100'
Liner	4 1/2"	11.6#	L-80	BTC	5282'	5811'	6"	Un-Cemented

*7" Casing set and cemented at the top of the Dakota formation

*Shoe-Track consists of one 7" Single-Valve Float Shoe, one joint of 7" casing, and one 7" Single-Valve Float Collar. Shoe-Track will be cemented from the Float Shoe to the Float Collar (~40').

*4 1/2" liner will be ran with a liner hanger and liner-top packer

*4 1/2" liner-top packer will be set no greater than 100' above the 7" shoe in good cement verified by CBL

Tubing Description (Est'd Depth - Top of Liner)

Size	Weight	Grade	Cplg	Top	Bottom
3 1/2" IPC	9.3#	L-80	EUE	0'	5282'

*Tubing ran with a seal assembly stung into PBR in liner top

*MIT performed to 1000 psi on tubing annulus, packer and seal assembly

6" OH - Perforated Liner

Formation	Top	Bottom	Stimulation
Dakota	5332'	5811'	15% HCl + Rock Salt or Polymer Diverter

TMD 5811'
TVD 5811'

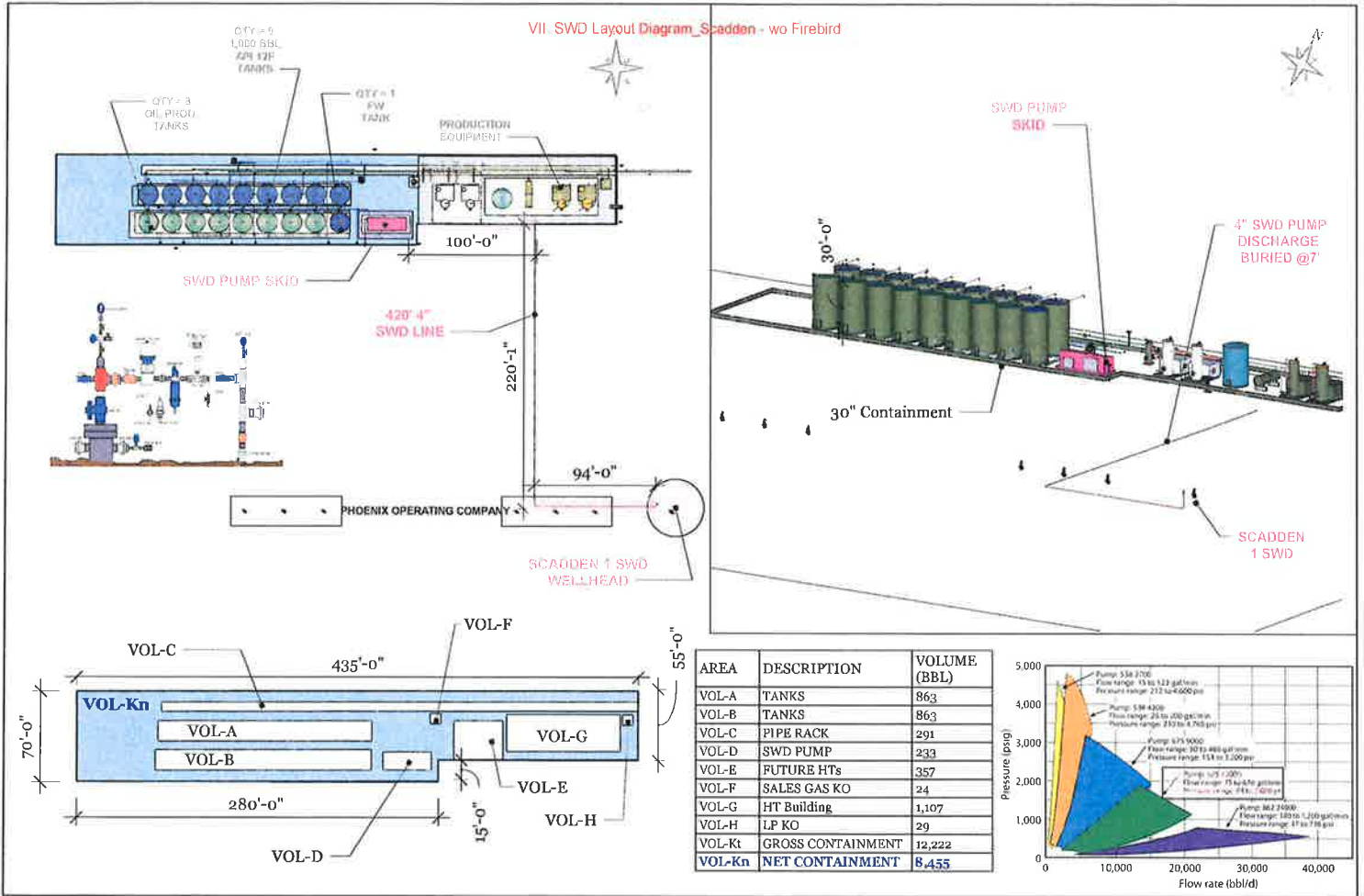
*Above Depths are Measured depths

*TD at least 30' above the top of the Swift formation

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<p>PHOENIX OPERATING COMPANY</p>	SWD FACILITY LAYOUT DIAGRAM		REVISIONS		A 01
	PHOENIX OPERATING COMPANY SCADDEN SOUTH PAD	SCADDEN 1 SWD	MM/DD/YY	REMARKS	
			1	09/05/24	SS - Initial Draft
			2	/ / /	/ / /
			3	/ / /	/ / /
			4	/ / /	/ / /
			5	/ / /	/ / /



VIII. Water Analysis - Source Waters

MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 North Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.MVTL.com



Account #: 23037 **Client:** Astro-Chem Laboratory, Inc.
Workorder: Milloy 10-3-24 #2H Well Pad (65921)

Brenda Benth
Astro-Chem
4102 2nd Ave W
Williston, ND 58801

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Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Stacy Zander

Stacy Zander, Bismarck Assistant Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Report Date: Wednesday, October 2, 2024 4:29:04 PM



VIII. Water Analysis - Source Waters

MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 North Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.MVTL.com



Account #: 23037

Client: Astro-Chem Laboratory, Inc.

Analytical Results

Table with 8 columns: Lab ID, Sample ID, Date Collected, Date Received, Matrix, Collector, Temp @ Receipt (C), Received on Ice. Includes values for Lab ID: 65921001, Date Collected: 09/21/2024 10:30, Matrix: Groundwater, etc.

Method: ASTM D1298

Table with 8 columns: Parameter, Results, Units, RDL, DF, Prepared, Analyzed, Qual. Includes rows for Density and Specific Gravity with results like 1.210 @ 65.0 g/cm3.

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VIII. Water Analysis - Source Waters

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 www.MVTL.com



Account #: 23037

Client: Astro-Chem Laboratory, Inc.

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Chain of Custody & Analyt
 www.astrochem

Astro-Chem Laboratory, Inc.
 WD: 65921



Page 1 of 1

Account Information (Billing Information)

Company Name	Astro-Chem Lab, Inc.
Contact	Christina Jungels
Phone	701-572-7355
Mailing Address	PO Box 972
City, State, Zip	Williston, ND 58802-0972
Email	astrochem@mldconetwork.com
Receive Invoice	<input type="checkbox"/> Hard Copy <input checked="" type="checkbox"/> Email
Receive Report	<input type="checkbox"/> Hard Copy <input checked="" type="checkbox"/> Email
Purchase Order	Quote <input type="checkbox"/> Bottle Order <input type="checkbox"/>

Report Information (if different)

Company Name	Phoenix Operatin
Contact	
Phone	
Mailing Address	
City, State, Zip	
Email	astrochem@midconetwork.com
Receive Report	<input type="checkbox"/> Hard Copy <input checked="" type="checkbox"/> Email

Project Information

Project Name, PWSID, Permit, etc.	Milloy 10-3-24 #2H Well Pad
Sampler Name	Dave Scadden
Sampler Phone	303-548-1953
Sample Origin	State ND
EPA/State Compliance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Matrix Codes

- A - Air
- W - Water
- S - Solid
- Sols - Solids
- V - Vegetation
- B - Biosassay
- O - Oil
- DW - Drinking Water

Analysis Requested

Specific Gravity	Density	Other	Other	Other	Other	Other	Other	Other	Other
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								

All turnaround times are standard unless marked as RUSH
 Astro-Chem Lab MUST be contacted prior to RUSH sample submittal for charges and scheduling

Sample Identification

Sample ID	Name, Location, Interval, etc.	Collection		Number of Containers	Matrix (Use Codes if used)	Specific Gravity	Density	Other	Other	Other	Other	Other	Other	Other	Other	Other	Other	Other	
		Date	Time																
1	Treater (Production Water)	09/21/2024	10:30 am	1	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
2	(03616)																		
3																			
4																			
5																			
6																			
7																			
8																			
9																			

LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID

Custody Record MUST be signed	Initialed by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature			
	Dave Scadden - Left in Vestibule	09/24/2024	D.S. Vesthale	Christina Jungels	09/24/2024	[Signature]			
LABORATORY USE ONLY									
Shipped By	Cooler ID(s)	Custody Seals	Intact	Receipt Temp	Temp Blank	On Ice	Payment Type	Amount	Receipt Number (attach only)
		Y N C B	Y N	21.0 °C	Y (N)	Y (N)	CC Cash Check	\$	

In certain circumstances, samples submitted to Astro-Chem Lab, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

EII-COC-01/21 v.4

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Report Date: Wednesday, October 2, 2024 4:29:04 PM

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October 10, 2024

Christina Jungels
Astro-Chem Lab, Inc.
4102 2nd Ave. W.
Williston, ND 58801

RE: Project: Phoenix Operating, LLC
Pace Project No.: 10709475

Dear Christina Jungels:

Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis
- Pace Analytical Services - Ormond Beach

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Andrea Richardson

Andrea Richardson
andrea.richardson@pacelabs.com
(218)341-6080
Project Manager

Enclosures

cc: Accounts Payable, Astro-Chem Lab, Inc.



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

MONTANA BOARD OF OIL &
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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240

Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

Pace Analytical Services Ormond Beach

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
California Certification# 3096
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
DoD-ANAB #:ADE-3199
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL01264
Maryland Certification: #346
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710

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CERTIFICATIONS

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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

Pace Analytical Services Ormond Beach

North Dakota Certification #: R-216
Ohio DEP 87780
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity
Utah FL NELAC Reciprocity
Utah
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10709475001	Milloy 10-3-24 #2H Well Pad	Water	09/21/24 10:30	09/26/24 08:50

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Pace Analytical Services, LLC

1700 Elm Street

Minneapolis, MN 55414

(612)607-1700

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SAMPLE ANALYTE COUNT

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10709475001	Milloy 10-3-24 #2H Well Pad	EPA 6010D	DM	9	PASI-M
		SM 2320B	KEO	3	PASI-M
		SM 2540C	JKH	1	PASI-M
		SM 4500-H+B	KEO	1	PASI-M
		EPA 120.1 Resistivity	SWB	1	PASI-O
		SM 2510	KEO	1	PASI-M
		ASTM D5057	JKH	1	PASI-M
		EPA 300.0	JFP	2	PASI-M
		EPA 353.2	JFP	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis
PASI-O = Pace Analytical Services - Ormond Beach

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ANALYTICAL RESULTS

MONTANA BOARD OF OIL &
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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

Sample: Milloy 10-3-24 #2H Well Pad Lab ID: 10709475001 Collected: 09/21/24 10:30 Received: 09/26/24 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Minneapolis								
Barium	24000	ug/L	500	10	09/30/24 13:03	10/01/24 12:05	7440-39-3	
Calcium	16200000	ug/L	25000	10	09/30/24 13:03	10/01/24 12:05	7440-70-2	
Chromium	ND	ug/L	500	10	09/30/24 13:03	10/01/24 12:05	7440-47-3	D3
Iron	127000	ug/L	2500	10	09/30/24 13:03	10/01/24 12:05	7439-89-6	
Magnesium	1250000	ug/L	25000	10	09/30/24 13:03	10/01/24 12:05	7439-95-4	
Potassium	8070000	ug/L	125000	10	09/30/24 13:03	10/01/24 12:05	7440-09-7	
Sodium	89500000	ug/L	500000	100	09/30/24 13:03	10/01/24 12:10	7440-23-5	
Strontium	1310000	ug/L	2500	100	09/30/24 13:03	10/01/24 12:10	7440-24-6	
Zinc	17800	ug/L	1000	10	09/30/24 13:03	10/01/24 12:05	7440-66-6	
2320B Alkalinity								
Analytical Method: SM 2320B								
Pace Analytical Services - Minneapolis								
Alkalinity, Total as CaCO3	58.4	mg/L	5.0	1		10/03/24 12:08		
Alkalinity,Bicarbonate (CaCO3)	58.4	mg/L	5.0	1		10/03/24 12:08		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	1		10/03/24 12:08		
2540C Total Dissolved Solids								
Analytical Method: SM 2540C								
Pace Analytical Services - Minneapolis								
Total Dissolved Solids	295000	mg/L	250	1		09/27/24 18:38		MW,PP
4500H+ pH, Electrometric								
Analytical Method: SM 4500-H+B								
Pace Analytical Services - Minneapolis								
pH at 25 Degrees C	5.5	Std. Units	0.10	1		10/08/24 12:45		H6
Resistivity								
Analytical Method: EPA 120.1 Resistivity								
Pace Analytical Services - Ormond Beach								
Resistivity	1.9	ohms-cm	0.50	1		10/02/24 14:00		N2
SM2510 Specific Conductance								
Analytical Method: SM 2510								
Pace Analytical Services - Minneapolis								
Specific Conductance	209000	umhos/cm	5.0	1		10/01/24 14:36		
Specific Gravity								
Analytical Method: ASTM D5057								
Pace Analytical Services - Minneapolis								
Specific Gravity	1.22			1		10/09/24 22:12		N2
300.0 IC Anions								
Analytical Method: EPA 300.0								
Pace Analytical Services - Minneapolis								
Chloride	167000	mg/L	6000	5000		10/07/24 10:02	16887-00-6	
Sulfate	256	mg/L	120	100		10/05/24 03:08	14808-79-8	
353.2 Nitrate + Nitrite								
Analytical Method: EPA 353.2								
Pace Analytical Services - Minneapolis								
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	1		10/06/24 11:45		

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QUALITY CONTROL DATA

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

Project: Phoenix Operating, LLC
 Pace Project No.: 10709475

QC Batch: 970670 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010D Water
 Laboratory: Pace Analytical Services - Minneapolis
 Associated Lab Samples: 10709475001

METHOD BLANK: 5072402 Matrix: Water
 Associated Lab Samples: 10709475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	ug/L	ND	10.0	10/01/24 11:18	
Calcium	ug/L	ND	500	10/01/24 11:18	
Chromium	ug/L	ND	10.0	10/01/24 11:18	
Iron	ug/L	ND	50.0	10/01/24 11:18	
Magnesium	ug/L	ND	500	10/01/24 11:18	
Potassium	ug/L	ND	2500	10/01/24 11:18	
Sodium	ug/L	ND	1000	10/01/24 11:18	
Strontium	ug/L	ND	5.0	10/01/24 11:18	
Zinc	ug/L	ND	20.0	10/01/24 11:18	

LABORATORY CONTROL SAMPLE: 5072403

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	993	99	80-120	
Calcium	ug/L	20000	19600	98	80-120	
Chromium	ug/L	1000	977	98	80-120	
Iron	ug/L	20000	20000	100	80-120	
Magnesium	ug/L	20000	19800	99	80-120	
Potassium	ug/L	20000	19900	100	80-120	
Sodium	ug/L	20000	20300	102	80-120	
Strontium	ug/L	1000	1020	102	80-120	
Zinc	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5072404 5072405

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		10708927001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Barium	ug/L	18.0	1000	1000	1000	990	98	97	75-125	1	20	
Calcium	ug/L	85.3 mg/L	20000	20000	101000	97900	81	63	75-125	3	20	P6
Chromium	ug/L	ND	1000	1000	964	955	96	95	75-125	1	20	
Iron	ug/L	3480	20000	20000	22900	22600	97	96	75-125	1	20	
Magnesium	ug/L	125 mg/L	20000	20000	141000	136000	80	55	75-125	4	20	P6
Potassium	ug/L	14.1 mg/L	20000	20000	34600	33800	103	99	75-125	2	20	
Sodium	ug/L	56.1 mg/L	20000	20000	73300	70900	86	74	75-125	3	20	M1
Strontium	ug/L	559	1000	1000	1540	1510	98	96	75-125	2	20	
Zinc	ug/L	ND	1000	1000	1000	995	100	99	75-125	1	20	

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QUALITY CONTROL DATA

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 971542 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10709475001

METHOD BLANK: 5076911 Matrix: Water
Associated Lab Samples: 10709475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	10/03/24 08:46	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	10/03/24 08:46	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	10/03/24 08:46	

LABORATORY CONTROL SAMPLE & LCSD: 5076912 5076913

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40	44.0	42.6	110	106	90-110	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5076914 5076915

Parameter	Units	10709079009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	93.6	40	40	134	135	100	103	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5076916 5076917

Parameter	Units	10709141012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	170	40	40	201	202	76	80	80-120	1	20	P6

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VIII. Water Analysis - Source Waters

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

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QUALITY CONTROL DATA

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 970573 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10709475001

METHOD BLANK: 5072111 Matrix: Water
Associated Lab Samples: 10709475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	09/27/24 18:37	

LABORATORY CONTROL SAMPLE: 5072112

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	992	99	80-120	

SAMPLE DUPLICATE: 5072113

Parameter	Units	10709141012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	206	196	5	10	

SAMPLE DUPLICATE: 5072114

Parameter	Units	10709194003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	157	151	4	10	

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QUALITY CONTROL DATA

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 972286 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10709475001

LABORATORY CONTROL SAMPLE: 5081033

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	5	5.0	100	98-102	H6

SAMPLE DUPLICATE: 5081034

Parameter	Units	10709552003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	4.3	4.2	1	3	H6

SAMPLE DUPLICATE: 5081035

Parameter	Units	10710487004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	3	H6

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QUALITY CONTROL DATA

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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 971086 Analysis Method: SM 2510
QC Batch Method: SM 2510 Analysis Description: SM2510 Specific Conductance
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10709475001

METHOD BLANK: 5074750 Matrix: Water
Associated Lab Samples: 10709475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	ND	5.0	10/01/24 13:16	

LABORATORY CONTROL SAMPLE: 5074751

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	933	93	90-110	

SAMPLE DUPLICATE: 5074752

Parameter	Units	10708260023 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	882	817	8	20	

SAMPLE DUPLICATE: 5074753

Parameter	Units	10708260024 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	1170	1170	1	20	

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QUALITY CONTROL DATA

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

MONTANA BOARD OF OIL &
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QC Batch: 972576 Analysis Method: ASTM D5057
QC Batch Method: ASTM D5057 Analysis Description: Spec.Gravity/ASTM D5057
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10709475001

SAMPLE DUPLICATE: 5082528

Parameter	Units	10709912001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Gravity		1.22	1.22	0	20	N2

SAMPLE DUPLICATE: 5082529

Parameter	Units	10709914001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Gravity		1.22	1.22	0	20	N2

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QUALITY CONTROL DATA

Project: Phoenix Operating, LLC
 Pace Project No.: 10709475

QC Batch: 971880 Analysis Method: EPA 300.0
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
 Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10709475001

METHOD BLANK: 5078609 Matrix: Water

Associated Lab Samples: 10709475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.2	10/04/24 23:06	
Sulfate	mg/L	ND	1.2	10/04/24 23:06	

LABORATORY CONTROL SAMPLE: 5078610

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.2	100	90-110	
Sulfate	mg/L	50	50.4	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5078611 5078612

Parameter	Units	50383317002		5078612		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	42600 ug/L	50	50	79.6	84.4	74	84	80-120	6	20 M1
Sulfate	mg/L	28200 ug/L	50	50	68.7	72.9	81	89	80-120	6	20

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MONTANA BOARD OF OIL & GAS CONSERVATION - BILLINGS

QUALITY CONTROL DATA

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

QC Batch: 971645 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10709475001

METHOD BLANK: 5077223 Matrix: Water
Associated Lab Samples: 10709475001

Table with 6 columns: Parameter, Units, Blank Result, Reporting Limit, Analyzed, Qualifiers. Row: Nitrogen, NO2 plus NO3, mg/L, ND, 0.10, 10/06/24 11:11

LABORATORY CONTROL SAMPLE: 5077224

Table with 7 columns: Parameter, Units, Spike Conc., LCS Result, LCS % Rec, % Rec Limits, Qualifiers. Row: Nitrogen, NO2 plus NO3, mg/L, 1, 1.1, 109, 90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5077225 5077226

Table with 13 columns: Parameter, Units, Result, MS Spike Conc., MSD Spike Conc., MS Result, MSD Result, MS % Rec, MSD % Rec, % Rec Limits, RPD, Max RPD, Qual. Row: Nitrogen, NO2 plus NO3, mg/L, ND, 1, 1, 1.1, 1.1, 108, 106, 90-110, 2, 20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5077227 5077228

Table with 13 columns: Parameter, Units, Result, MS Spike Conc., MSD Spike Conc., MS Result, MSD Result, MS % Rec, MSD % Rec, % Rec Limits, RPD, Max RPD, Qual. Row: Nitrogen, NO2 plus NO3, mg/L, ND, 1, 1, 1.1, 1.1, 107, 106, 90-110, 1, 20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

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Project: Phoenix Operating, LLC
Pace Project No.: 10709475

DEFINITIONS

- DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
- ND - Not Detected at or above adjusted reporting limit.
- TNTC - Too Numerous To Count
- J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
- MDL - Adjusted Method Detection Limit.
- PQL - Practical Quantitation Limit.
- RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
- S - Surrogate
- 1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
- Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
- LCS(D) - Laboratory Control Sample (Duplicate)
- MS(D) - Matrix Spike (Duplicate)
- DUP - Sample Duplicate
- RPD - Relative Percent Difference
- NC - Not Calculable.
- SG - Silica Gel - Clean-Up
- U - Indicates the compound was analyzed for, but not detected.
- N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
- Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
- Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
- TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- H6 Analysis initiated outside of the 15 minute EPA required holding time.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MW Due to matrix interference, achieving a constant weight is not possible.
- N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
- P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
- PP The mass of dried residue obtained did not meet the test method requirements based on volume used.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Phoenix Operating, LLC
Pace Project No.: 10709475

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10709475001	Milloy 10-3-24 #2H Well Pad	EPA 3010A	970670	EPA 6010D	971065
10709475001	Milloy 10-3-24 #2H Well Pad	SM 2320B	971542		
10709475001	Milloy 10-3-24 #2H Well Pad	SM 2540C	970573		
10709475001	Milloy 10-3-24 #2H Well Pad	SM 4500-H+B	972286		
10709475001	Milloy 10-3-24 #2H Well Pad	EPA 120.1 Resistivity	1045614		
10709475001	Milloy 10-3-24 #2H Well Pad	SM 2510	971086		
10709475001	Milloy 10-3-24 #2H Well Pad	ASTM D5057	972576		
10709475001	Milloy 10-3-24 #2H Well Pad	EPA 300.0	971880		
10709475001	Milloy 10-3-24 #2H Well Pad	EPA 353.2	971645		

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ASTRO-CHEM LAB, INC. 4102 2nd Ave. W. P.O. Box 972 Williston, ND 58801 701-572-7356 www.astrochemlab.com	Client: <u>Phoenix Operating, LLC</u> Project: <u>Milloy 10-3-24 #2H Well Pad</u> Project Manager: <u>Mark Johnson</u>	CHAIN of CUSTODY	Page 1 of 1												
		Telephone No. _____ Fax No. _____	Method of Shipment FEDEX OVERNIGHT												
ACL "Oilfield Water"		Container Preservative**	Special Detection Limit/Reorder												
		1 U U U 2 <small>** Preservative Types: (1) nitric acid (2) sulfuric acid (3) hydrochloric acid (4) sodium hydroxide (5) zinc acetate (6) methanol (7) sodium bisulfate (8) sodium thiosulfate (9) hexane (A) ascorbic acid (B) ammonium sulfate (C) ammonium hydroxide (D) TSP (U) unpreserved (O) Other:</small>													
Sample I.D.	Lab Sample No.	No. of Containers	Matrix	Soil	Water	Air	Other	Sampling Date	Sampling Time	Ca, Mg, Na, Fe, Cr, Ba, K, Sr, Zn	Chloride, Sulfate, pH, Conductivity, Resistivity, Total Dissolved Solids	Specific Gravity, Alkalinity (Carbonate & Bicarbonate)	Nitrate+Nitrite	Turn Around Time (working days)	Analysis Requested
<u>Milloy 10-3-24 #2H Well Pad (Treater)</u>	<u>(3615)</u>	<u>4</u>	<u>Water</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>9/21/24</u>	<u>10:30 AM</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<p>WO# : 10709475</p>  <p>10709475</p>															
Sample Received Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>		Temperature received: Ice <input type="checkbox"/> No Ice <input type="checkbox"/>													
Relinquished by sampler: <u>D.S. (Vestibule)</u>			Date: <u>9/24/24</u>			Time: _____			Received by (Signature): <u>Brenda Benth Brenda Benth</u>			Lab Work No. _____			
Relinquished by: <u>Brenda Benth Brenda Benth</u>			Date: <u>9/25/24</u>			Time: <u>2:00 PM</u>			Received by: <u>[Signature]</u>			Date: <u>9/26/24</u>			
Relinquished by: _____			Date: _____			Time: _____			Received by laboratory: _____			Date: _____			

astrochem@midconnetwork.com
www.astrochemlab.com

Methods for Analysis (ACL OIL WATER GUIDELINES)

Alkalinity (2320B)

Alkalinity, Bicarbonate (CaCO₃)

Alkalinity, Carbonate (CaCO₃)

Alkalinity, Total as CaCO₃

Nitrate + Nitrite (353.2)

Nitrogen, NO₂ plus NO₃

pH, Electrometric (4500H+B)

8 Metals-Barium, Chromium, Iron, Zinc, Calcium, Magnesium, Sodium, Potassium (6010D MET ICP)

Chloride & Sulfate (300.0 IC Anlons)

Resistivity (D1125-14)

Specific Conductance (SM2510)

Specific Gravity (ASTM D5057)

Strontium (6020B MET ICPMS)

Total Dissolved Solids (2540C)

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ENV-FRM-MIN4-0150 v17 Sample Condition Upon Receipt

CLIENT NAME: Astro-Chem Lab, Inc PROJECT #: _____

WO#: **10709475**
 PM: AR4 Due Date: 10/10/24
 CLIENT: 11 Astro Che

COURIER: Client Commercial FedEx Pace
 Speedee UPS USPS

TRACKING NUMBER: 7788 1920 3365 See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: YES NO Seals Intact: YES NO Biological Tissue Frozen: YES NO N/A
 Packing Material: Bubble Bags Bubble Wrap None Other Temp Blank: YES NO Type of Ice: Blue Dry Wet
 Thermometer: T1 (0461) T2 (0436) T3 (0459) T4 (0402) T5 (0178) T6 (0235)
 T7 (0042) T8 (0775) T9 (0727) 01339252 (1710) Melted None

Did Samples Originate in West Virginia: YES NO Were All Container Temps taken: YES NO N/A
 Correction Factor: -0.1 Cooler Temp Read w/Temp Blank: 0.9 °C Average Corrected Temp (no Temp Blank Only): _____ °C
 Cooler Temp Corrected w/Temp Blank: 0.8 °C
 NOTE: Temp should be above freezing to 6°C. See Exceptions Form ENV-FRM-MIN4-0142 1 Container

USDA Regulated Soil: N/A (Water sample/Other (describe): _____) Initials & Date of Person Examining Contents: JMW 9/26/24
 Did Samples originate from one of the following states (check maps) → AL, AR, AZ, CA, FL, GA, ID, IA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: YES NO Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): YES NO
 NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

LOCATION (check one):	YES	NO	N/A	COMMENT(S)												
Chain of Custody Present and Filled Out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.												
Chain of Custody Relinquished?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.												
Sampler Name and/or Signature on COC?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.												
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. If Fecal: <input type="checkbox"/> <8 hrs <input type="checkbox"/> >8 hr, <24 hr <input type="checkbox"/> No												
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. <input type="checkbox"/> BOD / cBOD <input type="checkbox"/> Fecal coliform <input type="checkbox"/> Hex Chrom <input type="checkbox"/> HPC, <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Ortho Phos <input type="checkbox"/> Total coliform/E. coli <input type="checkbox"/> Other: _____												
Rush Turn Around Time Requested?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.												
Sufficient Sample Volume?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.												
Correct Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.												
— Pace Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.												
Containers Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. Is sediment visible in the dissolved container: <input type="checkbox"/> YES <input type="checkbox"/> NO												
Field Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11. If NO, write ID/Date/Time of container below: <u>NO label on sample id only match with Lab Sample number</u> <input type="checkbox"/> See Exceptions form ENV-FRM-MIN4-0142												
Is sufficient information available to reconcile the samples to the COC? NOTE: If ID/Date/Time don't match fill out section 11. Matrix: <input type="checkbox"/> Oil <input type="checkbox"/> Soil <input checked="" type="checkbox"/> Water <input type="checkbox"/> Other	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12. Sample #: <u>001</u> <input checked="" type="checkbox"/> HNO ₃ <input checked="" type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH <input type="checkbox"/> Zinc Acetate Positive for Residual Chlorine: <input type="checkbox"/> YES <input type="checkbox"/> NO												
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<table border="1"> <thead> <tr> <th colspan="4">pH Paper Lot #</th> </tr> <tr> <th>Residual Chlorine</th> <th>0-5 Roll</th> <th>0-6 Strip</th> <th>0-14 Strip</th> </tr> </thead> <tbody> <tr> <td></td> <td><u>205224</u></td> <td></td> <td></td> </tr> </tbody> </table> <input type="checkbox"/> See Exceptions form ENV-FRM-MIN4-0142	pH Paper Lot #				Residual Chlorine	0-5 Roll	0-6 Strip	0-14 Strip		<u>205224</u>		
pH Paper Lot #																
Residual Chlorine	0-5 Roll	0-6 Strip	0-14 Strip													
	<u>205224</u>															
NOTE: If adding preservation to the container, verify with the PM first. Clients may require adding preservative to the field and equipment blanks when this occurs.																
Headspace in Methyl Mercury Container?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.												
Extra labels present on soil VOA or WIDRO containers? Headspace in VOA Vials (greater than 6mm)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14. <input type="checkbox"/> See Exceptions form ENV-FRM-MIN4-0140												
Trip Blanks Present? Trip Blank Custody Seals Present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. Pace Trip Blank Lot # (if purchased): _____												

CLIENT NOTIFICATION / RESOLUTION FIELD DATA REQUIRED: YES NO
 Person Contacted: _____ Date & Time: _____
 Comments / Resolution: _____

Project Manager Review: Anchea Richardson Date: 9/27/24
 NOTE: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).
 Labeled By: JMW Line: 2

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Internal Transfer Chain of Custody

Pace



Rush Multiplier X
 Samples Pre-Logged into eCOC
 Workorder Name: Phoenix Operating, LLC

State Of Origin: ND
 Cert. Needed: Yes No
 Owner Received Date: 9/26/2024 Results Requested By: 10/10/2024

Workorder: 10709475

Workorder Name: Phoenix Operating, LLC

Requested Analysis

Report To
 Andrea Richardson
 Pace Analytical Minnesota
 1700 Elm Street
 Minneapolis, MN 55414
 Phone (218)341-6080

Subcontract To
 Pace Analytical Ormond Beach
 8 East Tower Circle
 Ormond Beach, FL 32174
 Phone (386)672-5668

WO#: 35908965



Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers							Resistivity	LAB USE ONLY																										
						BP2U111																																		
1	Milloy 10-3-24 #2H Well Pad	PS	9/21/2024 10:30	10709475001	Water	1																																		
2																																								
3																																								
4																																								
5																																								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	<i>Made U/Pace</i>	<i>9/21/24 10:30</i>	<i>Pace</i>	<i>10/10/24 12:16</i>	
2					
3					

Cooler Temperature on Receipt °C Custody Seal Y or N Received on Ice Y or N Samples Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

VIII. Water Analysis - Source Waters
Sample Condition Upon Receipt Form

Pace

Project #
Project Manager:
Client:

WO#: 35908965
PM: JMW1
CLIENT: PACMIN
Due Date: 10/11/24

Date and Initials of person:
Examining contents: BP
Verifying pH:
Initials: KAMI

Thermometer Used: T414
Date: 10/01/24 Time: 1143

State of Origin _____
 For WW projects all containers verified to $\leq 6^{\circ}\text{C}$
Cooler #1 Temp. $^{\circ}\text{C}$ 15 (Visual) +0.1 (Correction Factor) 1.6 (Actual)
Cooler #2 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)
Cooler #3 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)
Cooler #4 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)
Cooler #5 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)
Cooler #6 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)
Recheck for OOT $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Samples on ice, cooling process has begun
 Samples on ice, cooling process has begun
 Samples on ice, cooling process has begun
 Samples on ice, cooling process has begun
 Samples on ice, cooling process has begun
 Samples on ice, cooling process has begun
Time: _____ Initials: _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other:
Shipping Method: Standard Overnight First Overnight Priority Overnight Ground International Priority Other:
Billing: Recipient Sender Third Party Credit Card Unknown

Tracking # 6476 5646 1809
Custody Seal Present: Yes No Seal properly placed and intact: Yes No

Packing Material: Bubble Wrap Bubble Bags None Other:
Ice: Wet Blue Dry None Melted

Samples shorted to lab: Yes No (if yes, complete the following)
Shorted Date: _____ Shorted Time: _____
Bottle Quantity / Type: _____

Chain of Custody:	Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sampler Name: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
	Relinquished To Pace: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sampling Date(s): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sampling Time(s): <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples Arrived within Hold Time	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Comments
Rush Turnaround Requested on COC	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Comments
Sufficient Volume	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Comments
Correct Containers Used	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Comments
Containers Intact	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Comments
Sample Labels Match COC (Sample ID, Date/Time of Collection)	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Comments
All containers needing acid / base preservation have been checked	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	PRESERVATION INFORMATION MONTANA BOARD OF OIL & GAS CONSERVATION - BILLINGS Preservative: _____ Date: _____ Lot / Trace: _____ Time: _____ Amount added (mL): _____ Initials: _____
All containers needing preservation are found to be in compliance with EPA recommendation:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Exceptions Vials Microbiology O&G PFAS		
Headspace in Volatile Vials? (>8mm)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Trip Blank Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

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Comments / Resolutions (use back for additional comments): NO client label on container, matched by JA label

Labeled by: BP Reviewed by: EPAS1 Delivered by: EPAS1

Leased Mineral Owners within AOR

Tri-Star Minerals
P.O. Box 3086
Minot, ND 58702

Susan G. Keillor
P.O. Box 18
Lake Ann, MI 49650

Marcus D. Lee
P.O. Box 1936
Williston, ND 58802

Timothy R. Lee
P.O. Box 81450
Billings, MT 59108

The Stony Creek Trust
c/o James V. Lee and Karen J. Lee
PO BOX 242
Port Orchard, WA 98366

Ann M. Dorwart
9728 Pinnacle Knoll Court
Colorado Springs, CO 80920

The Donald L. Laber Family Trust
c/o Jo Marie S. Nelson
P.O. Box 749
Culbertson, MT 59218

Kringen Oil, LLC
8540 East McDowell Road, Unit 59
Mesa, AZ 85207

Western Energy Corporation
P.O. Box 641
Williston, ND 58802

Crown Resources, LLC,
f/k/a Crown Resources LLP
1555 West Yellowstone Way
Chandler, AZ 85248

Enerlex Inc.
18452 East 111th Street
Broken Arrow, OK 74011

J. P. Furlong Co., f/k/a
Furlong Oil & Minerals Co.
P.O. Box 836
Charleston, IL 61920

The Erickson Family Trust UDT
c/o Daniel M. Erickson and Pamela Jo
Oyloe
591 Knobhill Drive
Lake Havasu City, AZ 86403

Boedecker Resources
P.O. Box 1236
Billings, MT 59103

Kaleb M. Dasinger
122 2nd Avenue Southwest
Sidney, MT 59270

The Carol Ann Maskeny Erickson Living
Trust, c/o Carol Ann Erickson
1753 West Regents Park Road
Crofton, MD 21114

Carol Ann Erickson
1753 West Regents Park Road
Crofton, MD 21114

Christopher Dale Keillor
1002 Carefree Court
Carson City, NV 89705

Jamie Paul Keillor
1619 Pontiac Trail
Ann Arbor, MI 48105

Kathleen Keillor O'Keefe
P.O. Box 166
Traverse City, MI 49685

Smokey Oil, LLC
130 Equinox Drive
Castle Rock, CO 80108

Lucy Rostar
1120 Barber Terrace Northwest
Grand Rapids, MI 49504

The Snead 2000 Revocable Trust c/o
Mark Snead and Ginger Snead
6528 East 101st Street, Building D-1
#443
Tulsa, OK 74133

Timothy P. Furlong
P.O. Box 2556
Bismarck, ND 58502

David Anthony Bussier
705 Woodbridge Drive
Dilworth, MN 56529

Sarah Lynn Bussier Uhler
705 Woodbridge Drive
Dilworth, MN 56529

Nancy Marie Bussier Wahl
1058 5th Avenue West
Dickinson, ND 58601

The Picard Family Trust c/o Samuel L.
Picard
1643 41st Street Way
Billings, MT 59106

Picard One, LLC
c/o Samuel L. Picard
1643 41st Street Way
Billings, MT 59106

Armen G. Suny
325 Lions Head Drive
Monument, CO 80132

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IX. List of Surface Owners - Mineral Owners within AOR

Lana Jane Hoffman 35296 Road 124 Visalia, CA 93291	The Campbell Living Trust c/o Earl C. Morton and Nancy Lou Campbell 18831 North Summerbreeze Way Surprise, AZ 85374	Alicia L. Vinecki 9401 Larchwood Lane Interlochen, MI 49643
Kenneth R. Wittl 19635 Garfield Street Redford, MI 48240	Phillip S. Olson 4025 Boulder Ridge Road Bismarck, ND 58503	Sandra S. Kennedy 1023 Kassuba Road Gaylord, MI 49735
JaNahn A. Barnhouse 2416 377th Avenue Northwest Stanchfield, MN 55080	Greg J. Olson 19726 Irving Street Northwest Elk River, MN 55330	Theresa Jaruzel 4157 McCoy Road Gaylord, MI 49735
Tamara J. Olson 36100 Xenon Street Northwest Princeton, MN 55371	Frank Maziarz 19821 Arthur Street, Apartment 238 Harper Woods, MI 48225	Brock Ebert 919 East 7th Street Gillette, WY 82716
Arthur Matusiak 10328 West Twin River Lane Homosassa, FL 34448	Danielle Lynn Muzyl 1088 Studebaker Avenue Ypsilanti, MI 48198	Anna D. Jaruzel 4157 McCoy Road Gaylord, MI 49735
Denice R. Melin 615 North Fern Street Cambridge, MN 55008	Christine Marie Muzyl P.O. Box 2249 Gaylord, MI 49734	Carol A. Tognetti 2324 Castlewood Drive Gaylord, MI 49735
Marleah Muzyl and William J. Muzyl P.O. Box 673 Gaylord, MI 49734	The Denise Mack Trust 1182 North University Drive Plantation, FL 33322	The Russell Torgerson and Renata Torgerson Revocable Trust 2602 Muirfield Court Missoula, MT 59808
The Robert A. Erickson Living Trust c/o Cleo M. Erickson 11336 Birdie Lane Ray, ND 58849	The Grant M and SueAnn Babcock Revocable Living Trust Survivor's Trust c/o Theodore Roosevelt Babcock P.O. Box 32341 Phoenix, AZ 85064	Marie Kirt 213 East Sheldon Gaylord, MI 49735
Donald T. Kirt W6495 Number 2 Road Menominee, MI 49858	Bonny Downing 1839 Lake Glen Drive Fuquay Varina, NC 27526	William Kirt 3169 Parmator Road Gaylord, MI 49735
The Special Needs Trust of Deborah L. Anderson, c/o First Fiduciary Corporation 4120 Lexington Way Eagan, MN 55123	Jackie Ruta 394 Crestview Drive South Maplewood, MN 55119	Tracy A. Schletz 1200 Josephine Road Roseville, MN 55113
Ricky A. Vinecki 9401 Larchwood Lane Interlochen, MI 49643	Haymaker Properties, L.P. P.O. Box 206200 Dallas, TX 75320	Estate of Scott Allen Keillor c/o Jamie Paul Keillor 1619 Pontiac Trail Ann Arbor, MI 48105

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IX. List of Surface Owners - Mineral Owners within AOR

Surface Owners with AOR

Department of Natural Resources &
Conservation (DNRC)
Northeast Land Office
PO BOX 1021
Lewistown, MT 59457-1021

Dale & Jodi & Dean Nelson
533 Big Lk Rd
Homestead, MT 59242

Russell & Renata Torgerson
2602 Muirfield Ct
Missoula, MT 59808-9472

RECEIVED

OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

<p>BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA</p> <p>IN THE MATTER OF THE APPLICATION FOR PHOENIX OPERATING LLC FOR THE HEARING OF ITS REQUEST FOR A UIC PERMIT FOR THE SCADDEN 1 SWD WELL, 450' FNL 2036' FEL, SECTION 21, T30N, R59E, P.M.M. ROOSEVELT COUNTY, MONTANA, FOR THE PURPOSE OF WATER INJECTION</p>	<p>AFFIDAVIT OF NOTIFICATION</p>
--	----------------------------------

Date: October 28, 2024

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OCT 30 2024

State of Utah
County of Uintah

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

Amy Doebele, being first duly sworn, deposes and says:

That Notice of advising of Phoenix Operating LLC' application for UIC permit in the captioned matter, in the form attached as "Exhibit A", was mailed to each current operator, surface owner and lease owner within the area of review at the addresses shown in the exhibit attached to the Notice, by mailing a true copy thereof this 29 day of Oct., 2024, postage prepaid, First Class USPS Mail. This affidavit is given as evidence of compliance with A.R.M. 36.22.1410.



Amy Doebele
Authorized Agent

Subscribed and sworn before me on this 29 day of Oct., 2024.



Notary Public of the State of Utah
My Commission Expires: May 17, 2026





October 25, 2024

To: Department of Natural Resources Conservation
Northeast Land Office
PO BOX 1021
Lewistown, MT 59457-1021

RE: Proposed Saltwater Disposal Well

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OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

Location of proposed Disposal Well & Facility: Scadden 1 SWD

NE 1/4 NW 1/4, Section 21, Township 30N, Range 59W. P.M.M.
Roosevelt County, Montana

This letter is to advise you that Phoenix Operating LLC (Phoenix) plans to drill and complete the subject well into a Class II saltwater disposal well. Water will be injected into the Dakota group for the purpose of disposal operations.

In accordance with the rules and regulations of the Montana Board of Oil & Gas Conservation (MBOG), Phoenix is required to give notice that it has made an application to perform this work to each surface owner within a one-quarter mile radius of the injection site. The MBOGC will conduct a hearing regarding this application. For the hearing date, please contact the MBOGC by phone at (406) 656-0040, or visit their website at <https://dnrc.mt.gov/BOGC/>. Your comments or objections regarding this application may be directed to the MBOGC at that time.

Written comments or objections may be submitted prior to the hearing to the following address:

Montana Board of Oil & Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

Please direct any and all of your communication regarding this proposed project, including more information about the upcoming hearing, to Mr. John Gizicki with the MBOGC at (406) 656-0040 or to Mark Johnson with Phoenix Operating LLC at (303) 548-1953.

Sincerely,

Amy Doebele
Authorized Agent for Phoenix Operating LLC

Phoenix Operating LLC

4643 S Ulster Street, Suite 1510, Denver, CO 80237 | 855-565-4244



October 25, 2024

To: Dale & Jodi & Dean Nelson
533 Big Lk Rd
Homestead, MT 59242

RE: Proposed Saltwater Disposal Well

RECEIVED

OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

Location of proposed Disposal Well & Facility: Scadden 1 SWD

NE 1/4 NW 1/4, Section 21, Township 30N, Range 59W. P.M.M.
Roosevelt County, Montana

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Sincerely,

Amy Doebele
Authorized Agent for Phoenix Operating LLC



October 25, 2024

RECEIVED

OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

To: Russel & Renata Torgerson
2602 Muirfield Ct
Missoula, MT 59808

RE: Proposed Saltwater Disposal Well

Location of proposed Disposal Well & Facility: Scadden 1 SWD

NE 1/4 NW 1/4, Section 21, Township 30N, Range 59W. P.M.M.
Roosevelt County, Montana

This letter is to advise you that Phoenix Operating LLC (Phoenix) plans to drill and complete the subject well into a Class II saltwater disposal well. Water will be injected into the Dakota group for the purpose of disposal operations.

In accordance with the rules and regulations of the Montana Board of Oil & Gas Conservation (MBOG), Phoenix is required to give notice that it has made an application to perform this work to each surface owner within a one-quarter mile radius of the injection site. The MBOGC will conduct a hearing regarding this application. For the hearing date, please contact the MBOGC by phone at (406) 656-0040, or visit their website at <https://dnrc.mt.gov/BOGC/>. Your comments or objections regarding this application may be directed to the MBOGC at that time.

Written comments or objections may be submitted prior to the hearing to the following address:

Montana Board of Oil & Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

Please direct any and all of your communication regarding this proposed project, including more information about the upcoming hearing, to Mr. John Gizicki with the MBOGC at (406) 656-0040 or to Mark Johnson with Phoenix Operating LLC at (303) 548-1953.

Sincerely,

Amy Doebele
Authorized Agent for Phoenix Operating LLC



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OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

October 25, 2024

To: Mineral lease owner within ¼ mile of the proposed saltwater disposal well.

RE: Proposed Saltwater Disposal Well

Location of proposed Disposal Well & Facility: Scadden 1 SWD

NE 1/4 NW 1/4, Section 21, Township 30N, Range 59W. P.M.M.
Roosevelt County, Montana

This letter is to advise you that Phoenix Operating LLC (Phoenix) plans to drill and complete the subject well into a Class II saltwater disposal well. Water will be injected into the Dakota group for the purpose of disposal operations.

In accordance with the rules and regulations of the Montana Board of Oil & Gas Conservation (MBOG), Phoenix is required to give notice that it has made an application to perform this work to each mineral lease owner within a one-quarter mile radius of the injection site. The MBOGC will conduct a hearing regarding this application. For the hearing date, please contact the MBOGC by phone at (406) 656-0040, or visit their website at <https://dnrc.mt.gov/BOGC/>. Your comments or objections regarding this application may be directed to the MBOGC at that time.

Written comments or objections may be submitted prior to the hearing to the following address:

Montana Board of Oil & Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

Please direct any and all of your communication regarding this proposed project, including more information about the upcoming hearing, to Mr. John Gizicki with the MBOGC at (406) 656-0040 or to Mark Johnson with Phoenix Operating LLC at (303) 548-1953.

Sincerely,

Amy Doebele
Authorized Agent for Phoenix Operating LLC



October 29, 2024

Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

Attn: Mr. John Gizicki
UIC Program Manager

RE: Application for UIC Permit and Authorization to Drill a Class II Injection Well
Location of proposed Disposal Well & Facility: Scadden 1 SWD
NE ¼ NW ¼, Section 21, Township 30N, Range 59W. P.M.M.
Roosevelt County, Montana

Dear Mr. Gizicki,

Phoenix Operating LLC (Phoenix) respectfully requests approval of an Underground Injection Control (UIC) permit for the referenced location and as described in the attached application. Phoenix has provided notice to the appropriate parties within ¼ mile area of review of the proposed well location and requests that the application be placed on the docket for the MBOGC hearing scheduled December 5, 2024.

If you have any questions concerning the enclosed application, please contact myself at (435) 789-1017 or to Mark Johnson with Phoenix Operating LLC at (303) 548-1953.

Sincerely,

Amy Doebele
Authorized Agent for Phoenix Operating LLC
UELS, LLC

RECEIVED

OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

RECEIVED

OCT 30 2024

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

Phoenix Operating - Scadden 1 SWD
BEFORE THE BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA

In the Matter of the application of

Phoenix Operating LLC

for a Class II Injection well permit.

NOTICE OF INTENTION TO APPLY FOR A

CLASS II INJECTION WELL PERMIT

1. Name and address of Applicant:

Phoenix Operating LLC
4643 S. Ulster Street
Suite 1510
Denver, CO 80237

This public legal notice is
scheduled to be published in
the Helena Independent
Record on November 2, 2024
Upon publication, receipt of the
proof of publication will be
provided to MBOGC.

2. Legal Description including County and Approximate
Footages of Surface Location of Proposed Oil and Gas Well:
(and projected bottom-hole location, if a directional or horizontal
well)

Scadden 1 SWD
Surface Hole: 450' FNL 2036' FEL
NENW Section 21, Township 30 North, Range 59 East
Roosevelt County, MT

3. Source of fluids to be injected

Produced water from Three Forks (Bakken) wells

4. Zone or formation into which injection will occur, including
depth

Dakota from 5,332 -5,811'

5. An aquifer exemption will be requested as part of the
application since the proposed injection zone contains water
with less than 10,000 ppm total dissolved solids.

Pursuant to Rules 36.22.1409, Administrative Rules of Montana,
the Montana Board of Oil and Gas Conservation will hold a
public meeting upon the application of Phoenix Operating LLC
for a Class II underground injection permit for the well or project
set forth above. Said hearing will be held at the Montana Board
of Oil & gas Hearing Room at 2535 St. John's Ave. Billings,
Montana, beginning at 9:00 am on Thursday, December 5,
2024.

November 2, 2024 ##### MNAXLP